CFI

the PBS archive add on for financial accounting and material documents

Manual Part C

- Display and evaluation -

Compatible with

SAP R/3 4.x

December 16, 2013

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Introduction to the PBS ILM Concept

Information Lifecycle Management

Information Lifecycle Management (ILM) means the administration of information related to the time when it is used, taking into account its total costs and compliance. A conclusive, efficient ILM concept must, as a result, control data growth, manage retention rules, and also ensure compliant data storage. Furthermore, an easy access to archived data is decisive and, for example, its transfer during internal and external audits.

PBS ILM Concept

PBS software provides existing SAP customers extensive solutions to put into practice the requirements that were described above for a stringent and successful ILM concept. PBS is considered as an expert for complex, integrated data accesses to archived and database data and meanwhile, also to data that is located on decommissioned SAP systems. In addition to classical SAP data archiving, SAP BI-specific nearline storage is also supported.

PBS archive add ons®

PBS archive add ons always rely on SAP archiving having been carried out successfully. This is the basis for a permanently high-performing SAP system. In principle, you can indeed retain posted documents in the SAP database for a very long time due to a large database capacity. Depending on the document volume, this may result, however, in massive performance losses and, sooner or later, heavily increasing operation costs. The daily backup becomes difficult for large data stocks, for example.

A convenient display and evaluation of archived transaction data – as the SAP user is used to for database data – can often only be carried out in a very restricted manner using SAP standard means depending on the application module. This is particularly the case for large archive data stocks. The PBS archive add ons can be used here. They can be provided for nearly all SAP modules and release levels, and start with a "C" (for Complete) in their description. For example, PBS archive add on CCOPA for the SAP module COPA.

Using the PBS archive add ons you can quickly and easily access your archived data even after data archiving during your day-to-day business. The unrestricted data access is realized by an intelligent indexing concept. It extends the SAP archive infrastructure components and integrates itself optimally with SAP archiving. Archive data that has been indexed can still be provided after a release upgrade immediately, without restrictions, and without migration effort. The PBS archive index is stored in sequential files of the SAP file system in the same way as the SAP archive data. Afterwards, you can access the archive data online via the familiar transactions. The SAP user can display the data from the SAP database and the archive data simultaneously via the PBS archive add on index. For the user, it seems as though the archived data is still in the SAP database.

The deep integration of the PBS transactions also enables direct navigation to subsequent and previous documents both within the indexed SAP module as well as to linked documents from other SAP modules. This applies not only for resident but also without restrictions for archived data. The benefit for the user increases the more PBS archive add ons are used.

The potential benefits of the ILM concept raises substantially if you take into account the savings that result from the SAP mirror systems. There are usually at least two of them meaning that the saved disk storage can be tripled by performing data archiving. Thus, time is saved for the data backup.

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1 Introduction

The ***PBS archive add ons*** are constructed in modular form and cover the application modules FI, SD, MM, CO etc. with a special program package for exactly this application. You can easily see from the name which *PBS archive add on* belongs to which SAP module: CFI, CSD, CMM, CCO etc. All *PBS archive add ons* have in common that they can be easily installed in the SAP R/3 system via the SAP transport utilities **"tp"** and "SAINT". For installation details of the *PBS archive add ons* please see the specific installation manual (manual part A).

This manual on the display transaction and application programs was written to support you when using the *PBS archive add on CFI*. Please see the administration manual (part B) regarding construction and administration of the *PBS archive add on CFI*.

The modular user manual of each *PBS archive add on* is composed of partial manuals:

- Part A: Installation
- Part B: Administration, Archive Construction and Maintenance
- Part C: Application Programs / Transactions
- Part D: Migration Support R/2 => R/3 (if available)

There are additional manuals for the PBS utilities: Conversion Tool, Archive Browser, Translation Tool.

Should you have questions regarding the installation of the *PBS archive add ons* or if you have problems when installing the software please call directly the **Service Hotline of PBS Software GmbH**:

Phone: +49 - 6251 - 174 110

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Email: hotline@pbs-software.com

Release Compatibility

The ***PBS archive add on CFI*** discussed in this manual runs with the basis programs of SAP AG, 69190 Walldorf/Baden, system, **releases 4.0, 4.5, 4.6, R/3 Enterprise**.

2 Application Functions

2.1 Navigation Within the PBS archive add on CFI up to 4.5x

PBS has integrated in its software a start menu which corresponds to the SAP standard menu S000 after having registered in the SAP system. The only difference is the additional function button "PBS archive add ons".

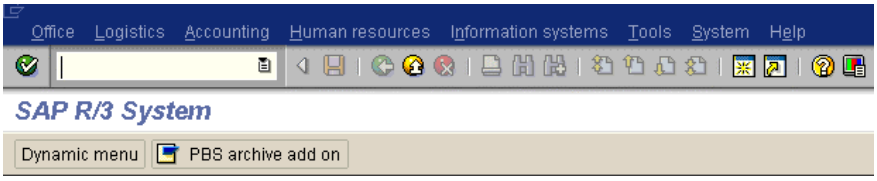

Office Logistics Accounting Human resources Information systems Tools System Help
SAP R/3 System
Dynamic menu
PBS archive add on

Diagram 1: PBS start menu after registration in the SAP system

In order to use this menu, you only have to enter start menu "YPBS" for users up to 3.1 respectively "/PBS/PBS" for users in all 4.0 releases and /PBS/PBS_45 from release 4.5.

After pressing the button, you get to the main menu transactions for the PBS archive add ons, by which you can address the different modules in a comfortable way.

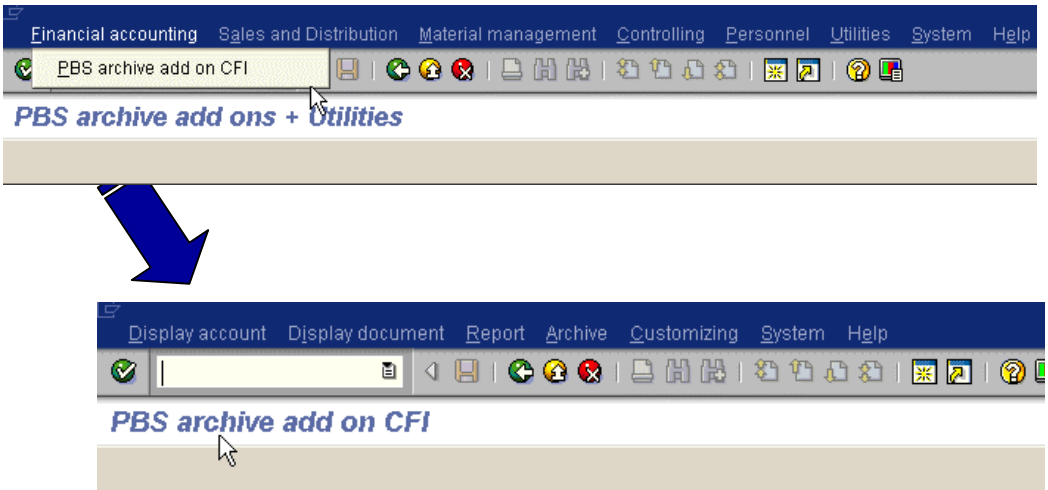

Financial accounting Sales and Distribution Material management Controlling Personnel Utilities System Help
PBS archive add on CFI
PBS archive add ons + Utilities
Display account Display document Report Archive Customizing System Help
PBS archive add on CFI

Diagram 2: **PBS main menu with branching to PBS archive add on CFI**

2.2 Navigation in the PBS archive add on CFI from 4.6

From the Easy Access menu you can easily navigate via the button 'User menu' through the functions of the PBS archive add on CFI. This is possible when your system administrator has added the role/activity group to your user profile.

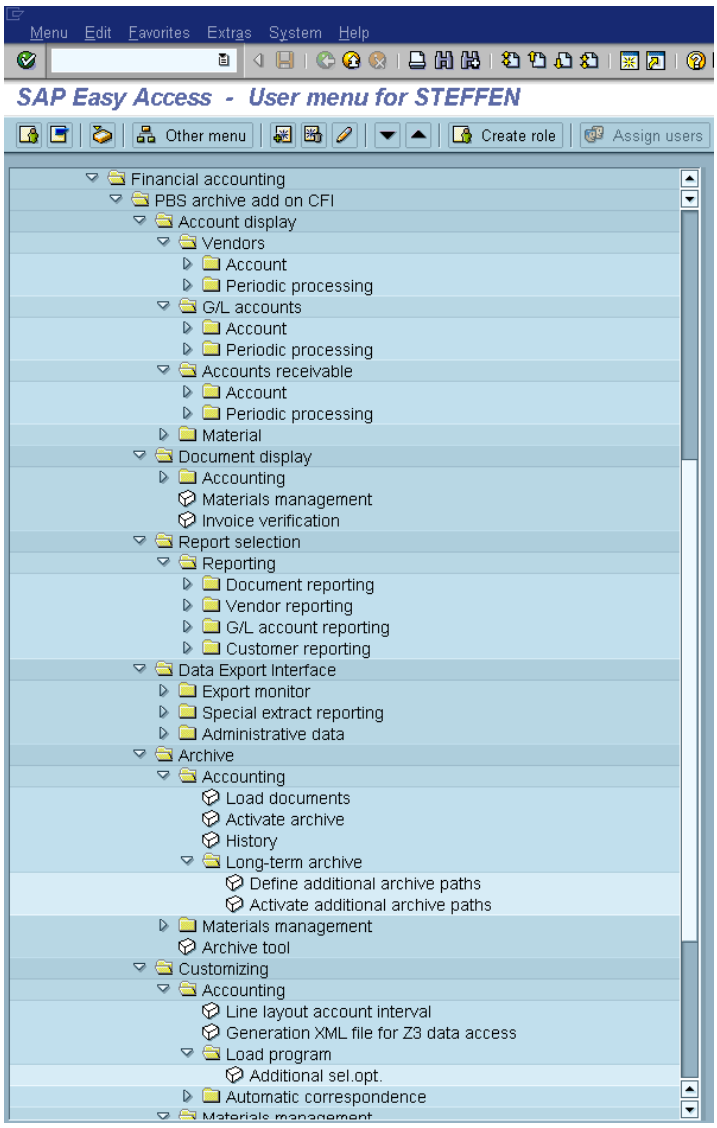


Diagram 3: Navigation via SAP Easy Access Menu

2.3 Display Transactions

With version 2.1 the following transactions are available which read documents from the operative tables of the SAP system and documents from the PBS archive. In general, you can also start these functions via the PBS navigation tools described above.

Note: From release 4.0 the PBS transaction names are composed of the corresponding SAP names by concatenating "/PBS/" and the SAP original name e.g.: SAP: FB03 becomes /PBS/FB03.

2.3.1 Vendors

PBS	SAP	from 4.6	Description of transaction
ZBL1	FBL1	FBL1N	Display vendor line items
ZK10	FK10	FK10N	Balance display vendor
ZKLI		/PBS/CFI_KLI	Vendor line items for account interval

2.3.2 G/L accounts

PBS	SAP	from 4.6B	Description of transaction
ZBL3	FBL3	FBL3N	Display G/L account line items
ZS10	FS10	FS10N	Balance display G/L account
ZSLI		/PBS/CFI_SLI	G/L account line items for account interval

2.3.3 Customers

PBS	SAP	from 4.6B	Description of transaction
ZBL5	FBL5	FBL5N	Display customer line items
ZD10	FD10	FD10N	Balance display Customer
ZD10	FD11		Customer account analysis
ZDLI		/PBS/CFI_DLI	Customer line items for account interval

2.3.4 Material

PBS	SAP	Description of transaction
ZL51	MB51	Display material documents for material

Starting with *customer patch* 5 *(first edition)* for all releases from 4.0B CFI provides additional PBS display transactions. In the CFI main menu they can be accessed via "Account Display - Material" or be called directly with the following transaction codes:

PBS from 4.0B	SAP	Description of transaction
/PBS/MB5L	MB5L	List stock value: Creation of balances
/PBS/MBSM	MBSM	Cancelled material documents
/PBS/MBGR	MBGR	Material documents with transaction reason
/PBS/MB59	MB59	Material documents re posting date
/PBS/MB5B	MB5B	Stock re posting date
/PBS/MB90	MB90	Output Processing for Mat. Documents
/PBS/MMBE	MMBE	Stock overview
/PBS/MR51[1)]	MR51	Accounting documents for material
/PBS/MC45[1)]	MC45	Analysis of Usage Values
/PBS/MC46[1)]	MC46	Analysis of Slow-Moving Items
/PBS/MC49[1)]	MC49	Mean Stock Values
/PBS/MC50[1)]	MC50	Analysis of Dead Stock

[1)] from SAP Enterprise Release

These transactions can be effectively used if the archive stock has already been created with the indexing program of *customer patch* 5 *(first edition)*. Old stocks can only be provided later on with the necessary indices for this purpose. For more details please see the CFI administration manual, chapters 3.2.5 and 3.2.6!

2.3.5 Documents

PBS	SAP	Description of transaction
ZB03	FB03	Display accounting document
ZB04	FB04	Display change document re accounting document
ZBU3	FBU3	Display cross-company code transaction
ZL03	MB03	Display material document
	MBST[2)]	Cancel material document
ZR03	MR03	Invoice verification

[2)] from 4.6c

2.3.6 Other transactions

PBS	SAP from 4.6	Description of transaction
ZCH2	FCH2	Payment document checks
ZB12	FB12	Request correspondence

In principle, the transactions are analogue in their functionality to the SAP standard transactions if a comparable transaction exists. Please see the SAP documentation for the detailed description of the transactions. In the following chapters we discuss additional transactions and the differences compared to the standard.

2.4 Customer /Vendor / G/L Account / Material Line Items

In general, the line item display transactions correspond to the SAP standard. Additionally, the volume for the selection can be delimited by choosing the corresponding data source using parameter '1=Database+archive, 2=Database, 3=Archive'.

In addition, PBS provides an own line layout variant for the open item and the G/L account transaction in order to refer already in the account's index table to archived documents (archive indicator = *). Should you have defined own line layout variants for the line item display (transaction O7Z3) you can also integrate there the archive indicator. Please use as a pattern the line layout variants provided by PBS.

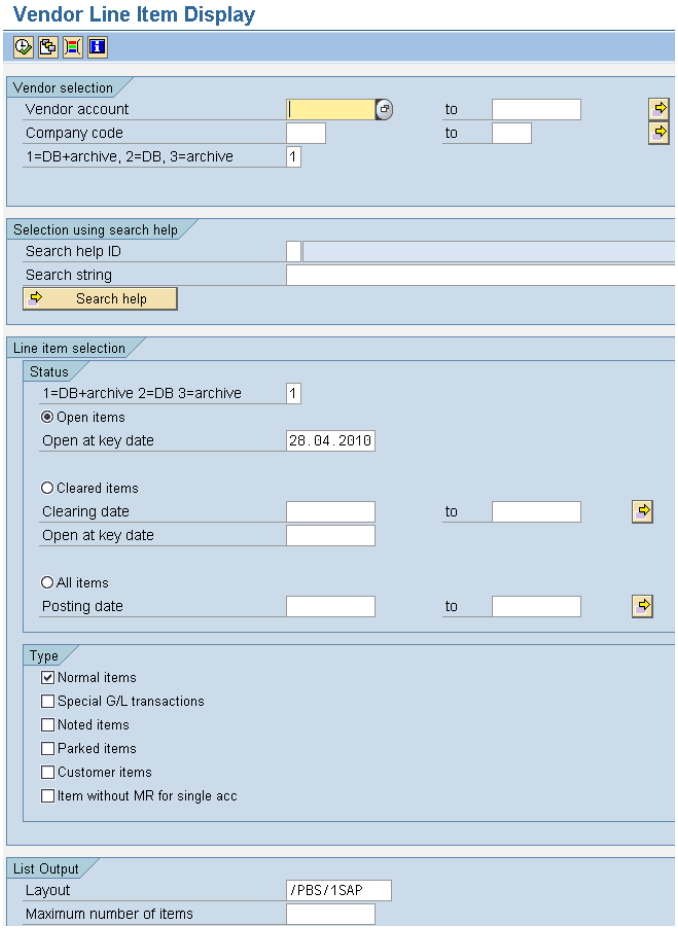
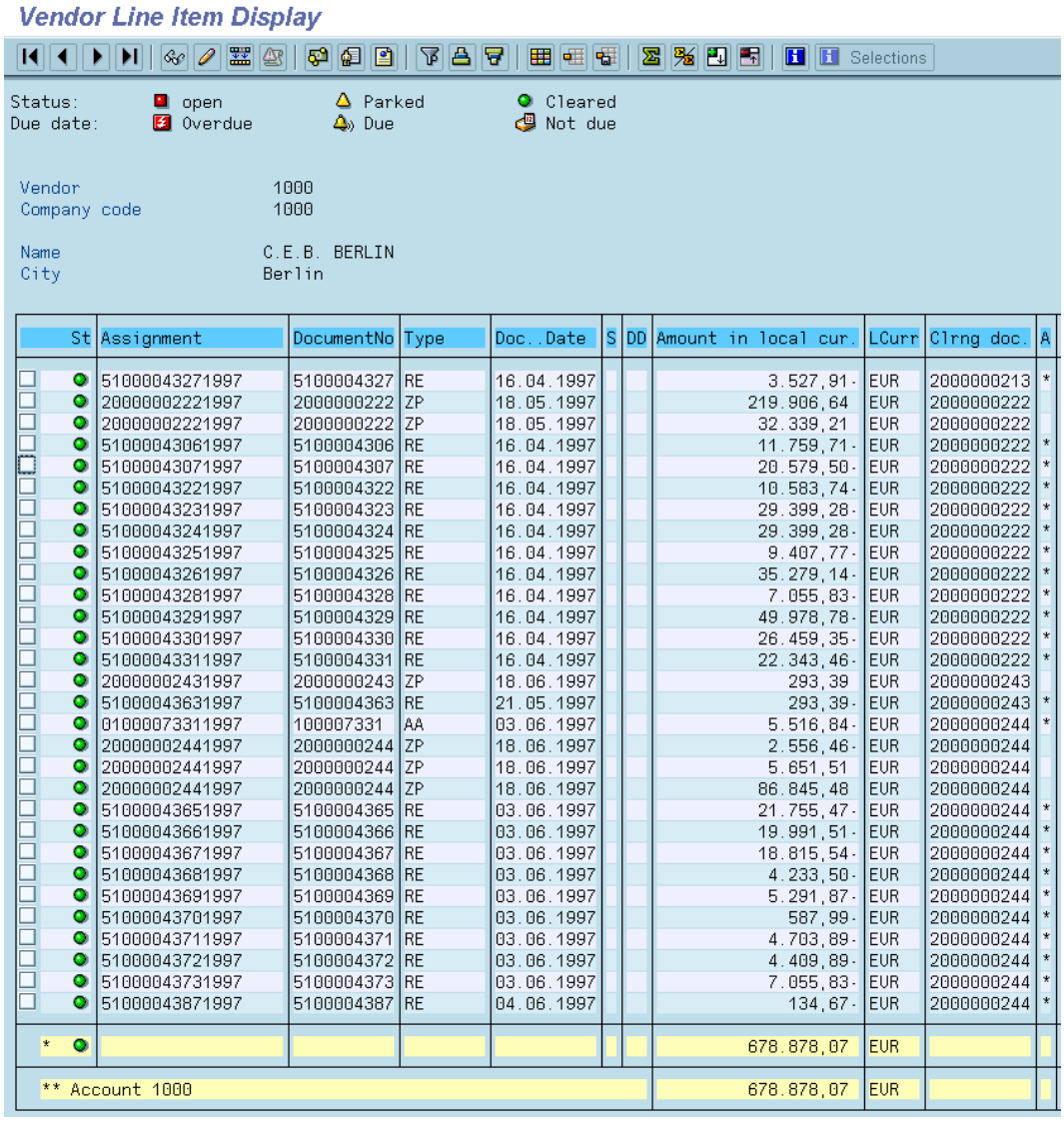


Diagram 4: Selection screen of PBS transaction "Display vendor line items" (ZBL1 respectively /PBS/FBL1N)



Vendor Line Item Display

Selections

Status: open Parked Cleared
Due date: Overdue Due Not due

Vendor 1000
Company code 1000

Name C.E.B. BERLIN
City Berlin

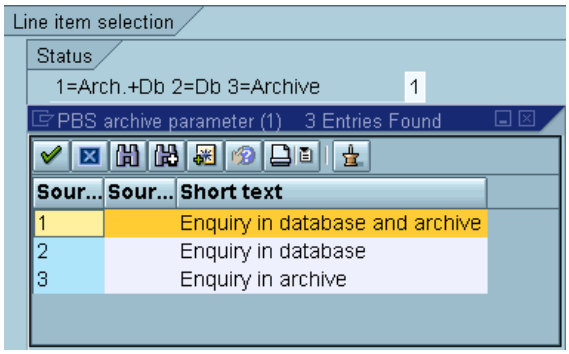
St	Assignment	DocumentNo	Type	Doc..Date	S	DD	Amount in local cur.	LCurr	Clrng doc.	A
	51000043271997	5100004327	RE	16.04.1997			3.527,91-	EUR	2000000213	*
	20000002221997	2000000222	ZP	18.05.1997			219.906,64	EUR	2000000222	
	20000002221997	2000000222	ZP	18.05.1997			32.339,21	EUR	2000000222	
	51000043061997	5100004306	RE	16.04.1997			11.759,71-	EUR	2000000222	*
	51000043071997	5100004307	RE	16.04.1997			20.579,50-	EUR	2000000222	*
	51000043221997	5100004322	RE	16.04.1997			10.583,74-	EUR	2000000222	*
	51000043231997	5100004323	RE	16.04.1997			29.399,28-	EUR	2000000222	*
	51000043241997	5100004324	RE	16.04.1997			29.399,28-	EUR	2000000222	*
	51000043251997	5100004325	RE	16.04.1997			9.407,77-	EUR	2000000222	*
	51000043261997	5100004326	RE	16.04.1997			35.279,14-	EUR	2000000222	*
	51000043281997	5100004328	RE	16.04.1997			7.055,83-	EUR	2000000222	*
	51000043291997	5100004329	RE	16.04.1997			49.978,78-	EUR	2000000222	*
	51000043301997	5100004330	RE	16.04.1997			26.459,35-	EUR	2000000222	*
	51000043311997	5100004331	RE	16.04.1997			22.343,46-	EUR	2000000222	*
	20000002431997	2000000243	ZP	18.06.1997			293,39	EUR	2000000243	
	51000043631997	5100004363	RE	21.05.1997			293,39-	EUR	2000000243	*
	01000073311997	100007331	AA	03.06.1997			5.516,84-	EUR	2000000244	*
	20000002441997	2000000244	ZP	18.06.1997			2.556,46-	EUR	2000000244	
	20000002441997	2000000244	ZP	18.06.1997			5.651,51	EUR	2000000244	
	20000002441997	2000000244	ZP	18.06.1997			86.845,48	EUR	2000000244	
	51000043651997	5100004365	RE	03.06.1997			21.755,47-	EUR	2000000244	*
	51000043661997	5100004366	RE	03.06.1997			19.991,51-	EUR	2000000244	*
	51000043671997	5100004367	RE	03.06.1997			18.815,54-	EUR	2000000244	*
	51000043681997	5100004368	RE	03.06.1997			4.233,50-	EUR	2000000244	*
	51000043691997	5100004369	RE	03.06.1997			5.291,87-	EUR	2000000244	*
	51000043701997	5100004370	RE	03.06.1997			587,99-	EUR	2000000244	*
	51000043711997	5100004371	RE	03.06.1997			4.703,89-	EUR	2000000244	*
	51000043721997	5100004372	RE	03.06.1997			4.409,89-	EUR	2000000244	*
	51000043731997	5100004373	RE	03.06.1997			7.055,83-	EUR	2000000244	*
	51000043871997	5100004387	RE	04.06.1997			134,67-	EUR	2000000244	*
*							678.878,07	EUR		
** Account 1000							678.878,07	EUR		

Diagram 5: Selection result vendor line items

2.5 Customer / Vendor / G/L Accounts / Material Line Items from 4.6

From 4.6 the layout of the display transactions has been changed. On the one hand, you can now select line items regarding the account intervals; on the other hand, the Automatic List Viewer (ALV) is used to display the items. PBS has added two more selections to the standard version.

1. Selection of the search medium



Via '1= Database+archive, 2=Database, 3=Archive' the selection volume can be restricted by selecting the search medium.

2. Selection of items which do not have a master record.

Items regarding accounts whose master record does not exist anymore can, nevertheless, be displayed, if the parameter 'Item without master (single account)' is active. Precondition for the selection, however, is that the selection is restricted to exactly one account of the company code.

Display variants

In addition, PBS provides own display variants for the open items- and G/L account transaction, in order refer already in the index table to the account to archived documents (archive indicator = *). If you have defined own line layout variants for the line item display, you can integrate the archive indicator also at this position. Please use the display variants provided by PBS.

3. Area Goods Movements – differences compared to the standard

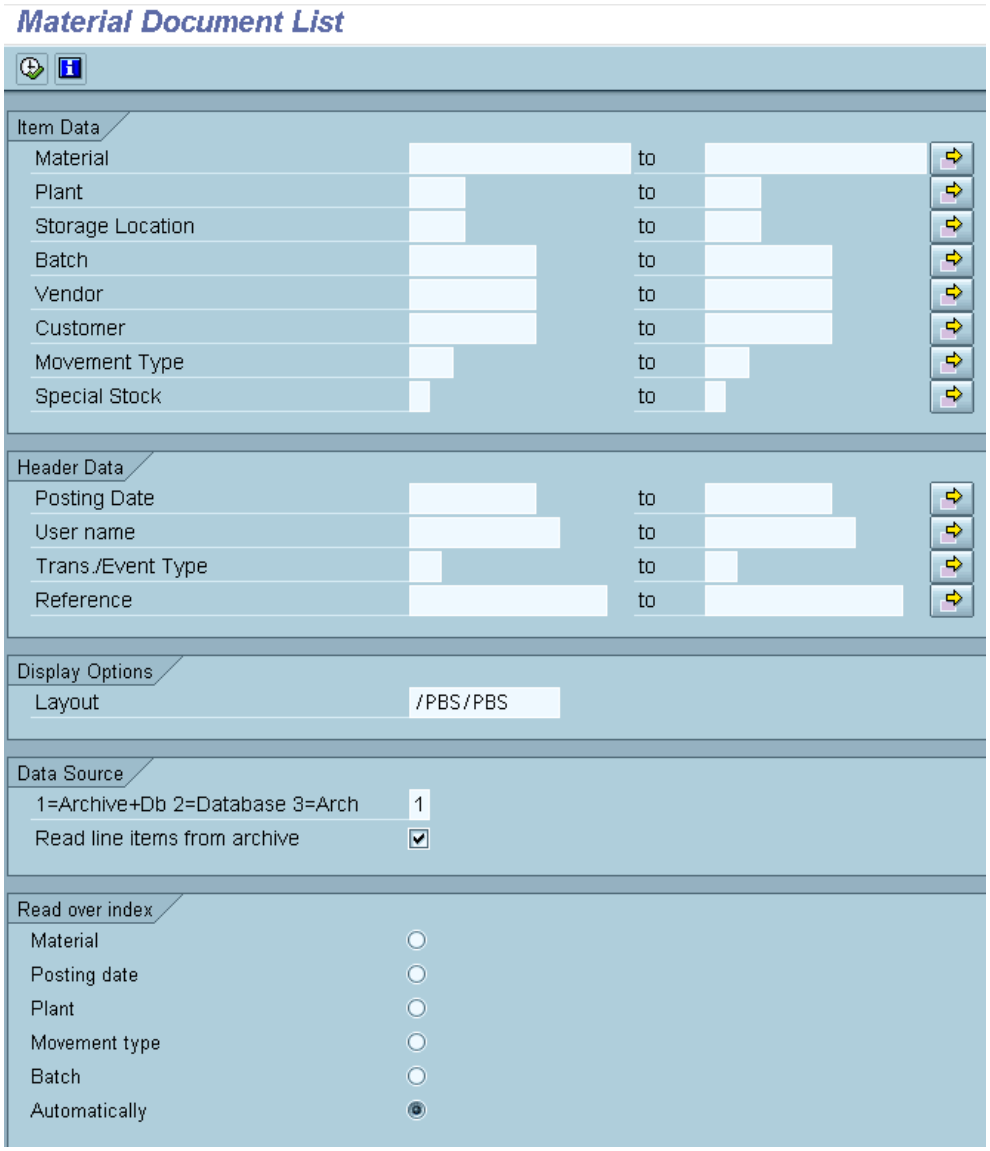


Diagram 6: Transaction /PBS/MB51 – Display Material document list

The initial screen contains additional selections:

Read line items from archive – If this parameter is active, line items are read from the archive so that all document item fields are filled. If you do not have an own display variant, the basic list /PBS/PBS is proposed automatically. If you use own display variants which contain fields not supplied by the PBS secondary/multipurpose index, the parameter has to be activated. Then you will get the requested information for archive documents.

The following fields are already supplied by the PBS secondary index:

Header fields:

- number of material document
- material document year
- user name
- transaction type
- posting date in the document
- document date in document
- document type

Item fields:

- material number
- item in material document
- company code
- accounting document number
- fiscal year
- number of line item within accounting document
- plant
- storage location
- movement type
- special stock indicator
- debit/credit indicator
- valuation type
- quantity in unit of entry
- batch number
- movement indicator
- receipt indicator
- consumption posting
- quantity
- base unit of measure
- amount in local currency
- stock type
- vendor's account number
- indicator: valuation of special stock (only supplied by multipurpose index).

Read over index (secondary index material / multipurpose index) – the user has the possibility to decide which PBS index should be used to access the archive.

From release 4.6 customer patch 7 (second edition) the transactions refer to report /PBS/RM07DOCS for the material document display /PBS/MB51 and /PBS/MB59. The old program /PBS/RM07MMAT is still supplied up to SAP Enterprise.

B. Transaction /PBS/MB5B

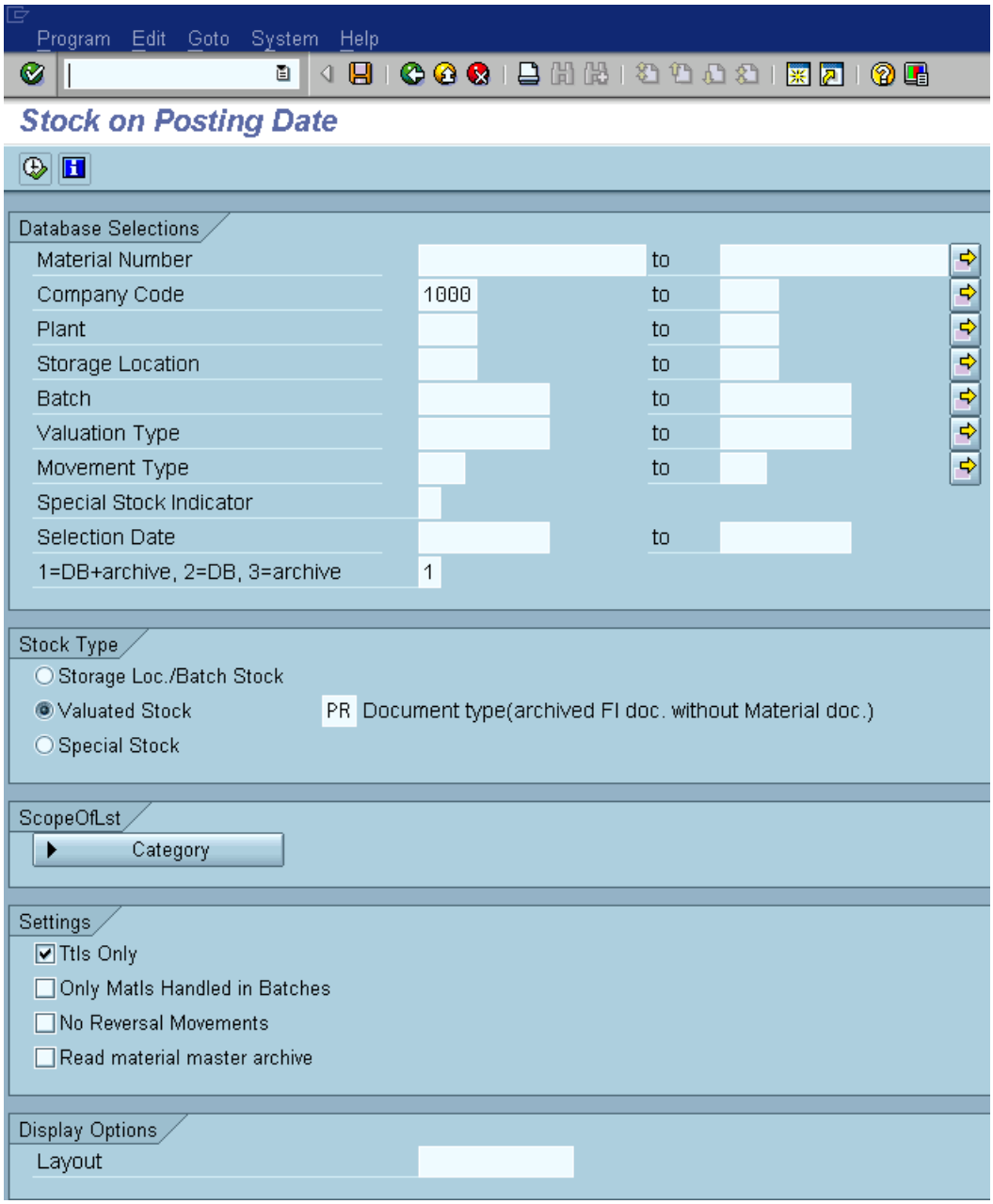


Diagram 7: Transaction /PBS/MB5B – Stock on posting date

The initial screen contains additional selections:

Document type – If materials which belong to the valuated stock are displayed, the list contains FI documents without a material document (price change BLART = PR, invoice BLART = RF, etc).

To display archived FI documents which were loaded into the PBS archive before the SAP Enterprise Release, the user must choose the document type.

Read material master archive – If this checkbox is active, you can also display material documents of archived material masters in case the PBS archive add on CMT has been installed.

2.6 Display Accounting Document / Material Document

The document display transactions can be called via the menu transaction *ZCFI (or /PBS/CFI) ⇨ Display Document ⇨ Accounting ⇨ Accounting Document or ⇨ Display Document ⇨ Material Management*. Moreover, in the financial accounting also migrated recurring entry documents can be displayed. The transactions are analogue to the SAP standard.

The only addition we should like to draw your attention to is the PBS archiving indicator '*' being displayed as well in the document overview.

If document numbers are used again some time after the document has been removed it may occur that this document number is also contained in the PBS archive add on. In this case a selection list is displayed. By the function key F2 a document can be selected and the item overview of the document is displayed.

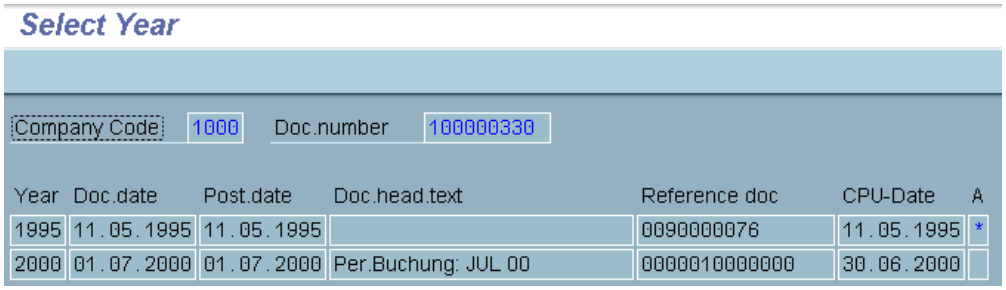


Diagram 8: Document selection

From customer patch 7 (second edition) the **transaction Output Processing for Mat. Documents (/PBS/MB90)** can be called via the menu *Material document* → *Process output* **in the material document display transaction (/PBS/MB03).**

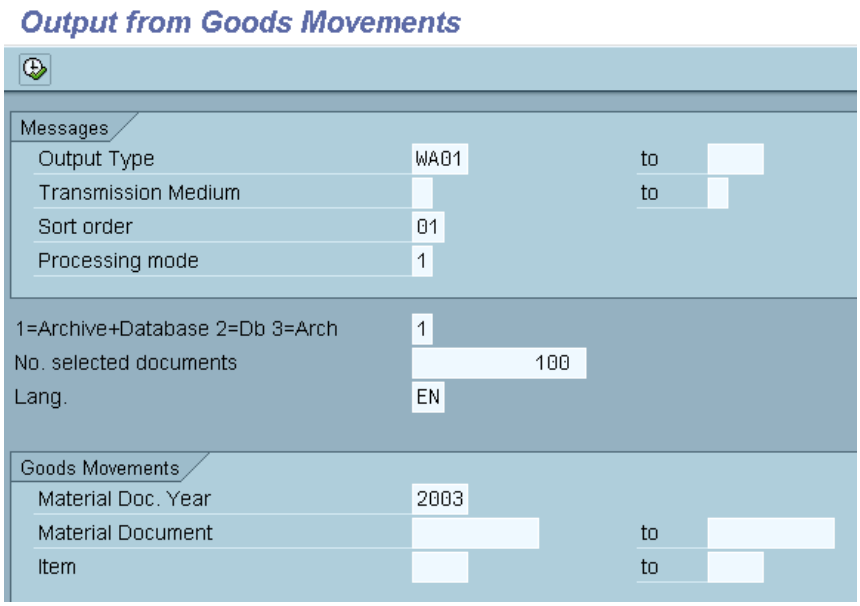


Diagram 9: Transaction Output Processing for Material Documents (/PBS/MB90)

2.7 Line Items for Customer / Vendor / G/L Account Interval

These evaluation programs correspond to the line item displays for the customers/vendors/G/L accounts. In contrast to those, **all accounts** can be evaluated once in a single request.

Important:

In principle it is possible to use these programs in the online operation. However, if you want to process a large data stock we recommend running this program using a variant in a background process.

We explain the functions of these programs taking a vendor evaluation as an example. In case of differences to the evaluation of customers or G/L accounts we mention them explicitly.

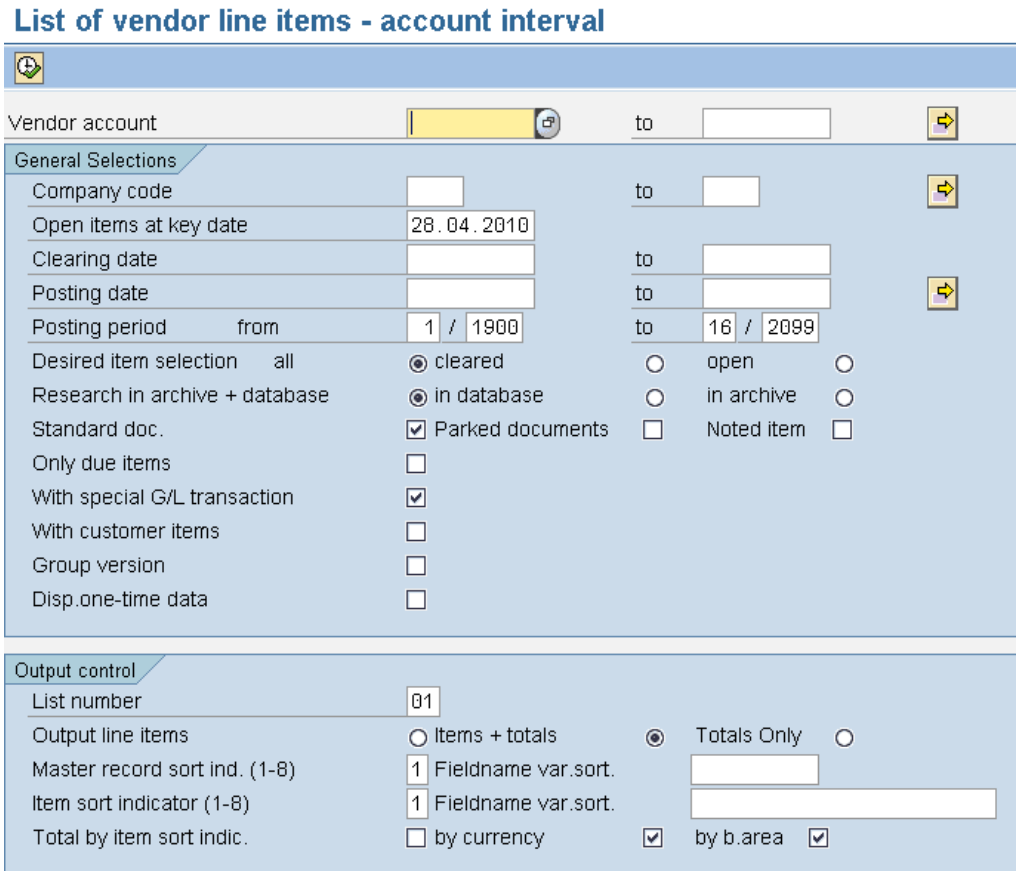


Diagram 10: Line items of an account interval

Evaluations of account intervals can be started via menu: *Display account ➔ account ➔ account interval.*

On the upper part of the selection screen the essential selection possibilities and control options are shown. **Further selections** like allocation number, business area, document type can be found on the lower part.

Normally, selections like vendor number, company code, clearing date etc. correspond to the ones of the SAP standard. In the following we give a detailed explanation of all special control possibilities.

Desired item selection	all ◉	cleared ○	open ○

This option is closely connected with the selections 'Open items at key date' and 'Clearing date'. If you enter an open item date and not a clearing date, all open items at this deadline and all cleared items are displayed. This is not requested in certain cases and can be controlled using this parameter.

Example 1:

You want to select only the open items at a certain key date.

Enter the open item date and qualify the parameter 'Wanted Item Selection' with 'Open'.

Example 2:

You want to select from the cleared items only those items open at a certain key date.

Enter the requested open item date.

Enter the requested clearing date interval.

Qualify the parameter 'Wanted Item Selection' with 'Cleared'.

Research in archive and database ◉	in database ○	in archive ○

In the standard, the items are searched for in the PBS archive add on and in the database. If you know for sure that the item you search is already in the archive or has not yet been archived, you can restrict the search to the PBS archive add on respectively to the database. This accelerates the search.

Standard doc. ☑

Indicator defining that only documents relevant for the accounting are to be evaluated. This selection is active as suggested value.

Parked documents ☐

If this parameter is selected, in addition, the documents are selected from the stock of parked documents.

Noted item ☐

Selecting this parameter the noted items are evaluated

Noted items are special items not changing any account balance. When posting a noted item a document is created, the item can be displayed via the line item display. Certain noted items are processed by the payment or dunning program (e.g. downpayment requests).

The selection to noted items does not exist in the G/L account evaluation.

Only due items ☐

Selecting this parameter, only due items are displayed.

If this parameter is selected, it is not useful to delimit cleared items. In this case, the item selection is set to 'Only Open Items'.

With special G/L transactions ☑

Selecting this parameter, special general ledger transactions are displayed in the list

These operations of the customer and vendor accounting are displayed as special items in the general ledger and the sub-ledger. Among these are, for example, bills of exchange, down payments, guarantees.

If the parameter

With customer items ☐

is selected the debit-side items are displayed if the vendor is also a customer.

In the customer evaluation a parameter is offered for the vendor items. The parameter does not exist in the G/L account evaluation.

Group version ☐

If this parameter is selected the selected company codes per account are displayed. Otherwise, i.e. in the standard version, the accounts are displayed per company code.

Disp. one-time data ☐

Indicator causing that in case of CpD accounts the name and the address per line item are displayed as well.

If the parameter compression level is set to "1" a compression of the line items of the CpD accounts only takes place under the following conditions:

- the parameter P sort indicator has the value "2". (i.e. sort according to allocation key)
- in the master of the CpD account the sort indicator (SORT-KZ) has the value "22" or "23" in the corresponding company code (i.e. the name and the location of the CpD business partner is used to create the allocation key)
- the parameter sub-total is selected

If not all conditions are fulfilled, in case of the CpD accounts each line item is generally displayed with the customer's name and address.

This selection does not exist for G/L account evaluations.

Alternative account number ☐

Selecting this parameter the G/L account number is replaced with the alternative account number (from the company-code-specific country-specific charts of accounts).

Preconditions

The number is only substituted if in the global data of the selected company codes those country-specific charts of accounts are maintained which differ from the chart of accounts of the company code. The alternative account numbers in the G/L account masters have to be contained in the corresponding country-specific chart of accounts.

This selection does not exist in the customer and vendor evaluations.

The following selections considerably influence the list display.

List number

This parameter is used to select the fields to be displayed as they are defined in the line construction variant. All line layout variants have an explicit list number. PBS provides list variants in the standard version. The list numbers 01 to 50 are defined for customer-/vendor variants and from list number 51 for G/L accounts. Via the value help key the existing lists can be displayed and selected.

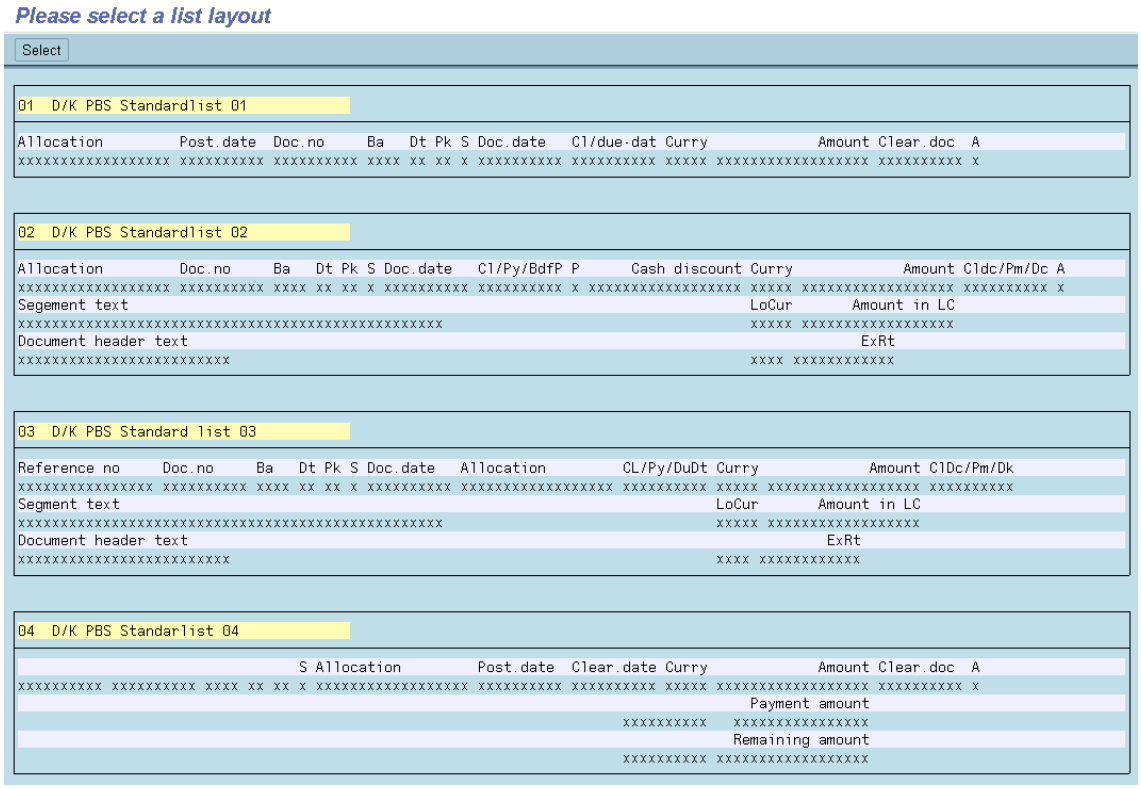

Please select a list layout
Select
01 D/K PBS Standardlist 01
Allocation Post.date Doc.no Ba Dt Pk S Doc.date Cl/due-dat Curry Amount Clear.doc A
02 D/K PBS Standardlist 02
Allocation Doc.no Ba Dt Pk S Doc.date Cl/Py/BdfP P Cash discount Curry Amount Cldc/Pm/Dc A
Segement text LoCur Amount in LC
Document header text ExRt
03 D/K PBS Standard list 03
Reference no Doc.no Ba Dt Pk S Doc.date Allocation CL/Py/DuDt Curry Amount ClDc/Pm/Dk
Segment text LoCur Amount in LC
Document header text ExRt
04 D/K PBS Standarlist 04
S Allocation Post.date Clear.date Curry Amount Clear.doc A
Payment amount
Remaining amount

Diagram 11: List selection

Output line items ○ Items + totals ◉ Only totals ○

Via this parameter you can select if after the output of the items having the same sort criterion (see corresponding section) a group total is displayed. This function is defined as default value. If only the totals are requested the selection is made per sort criterion.

Master record sort indicator (1-8)

You can use this parameter to determine according to which sort option the selected master data is to be sorted.

The following sorts are available:

D/K	S	Sort
1	1	Normal version: Sort by Company Code / account no. Group version: Sort by account no. / Company Code
2		Sort by country
3		Sort by group key
4	2	Sort by consolidated companies indicator
5		Sort by industry key
6	3	Sort by person in charge for accounting
7		Sort by account short name
8	4	variable Sort: Customer: Fields valid from table KNA1/KNB Vendor: Fields valid from table LFA1/LFB1 G/L account: Fields valid from table SKA1/SKB1

Using F4 key a sort option can be chosen.

If a variable sort is requested please indicate in the selection

Field name variable Sort : Master record sort

the field in question from the above tables. Also in this case you have the possibility to make a selection with the value help key.

Item sort indicator (1-8)

Within a master record the items can be sorted as follows:

1. Sort according to allocation number within the account number
2. Sort according to posting date variable
3. Sort according to an item field from the following tables:

   RFPOS, ZZPOS, BKPF, BSEG, BSED, BSEC, PAYR
4. Sort according to document date
5. Sort according to clearing date/clearing document number/posting date
6. Sort according to business area
7. Sort according to amount (absolute, descending)
8. Sort according to posting period/posting date

Field Name Variable Sort: Item Sort

If a variable sort is requested please indicate in the selection the field in question from the above tables. Also in this case you have the possibility to make a selection with the value help key.

Total per Item Sort Indicator ☐

If this parameter is selected, at the end of the lowest group level (determined by the parameter "P Sort Indicator") each time a sub-total is displayed.

If the parameter "P Sort Indicator" is set for example to "6" (i.e. sort according to business area) at the end of each business area the sub-total is printed.

Total per Currency ☑

If this parameter is selected at the end of each group level the amounts posted in foreign currency are summed up and displayed per currency key.

In addition, in case of the line item lines posted in foreign currency, besides the document also the local currency of the current company code is printed.

Total per Business Area ☑

If this parameter is selected, at the end of each group level the amounts summed up are displayed per business area.

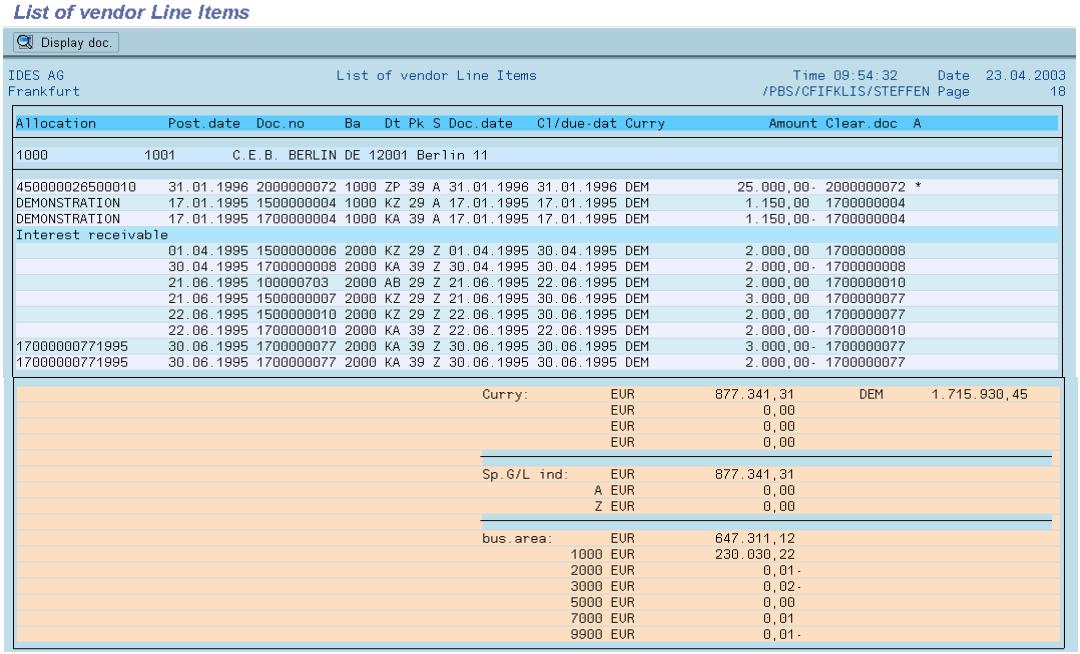


Diagram 12: Selection list vendors

2.7.1 Define List Variants

You can define individually the customer, vendor and G/L account variants. These variants determine the line layout for the item display via the customer/vendor/G/L account evaluations. For each account type PBS provides standard variants, allocating the G/L accounts the variant number interval 51 to 99. For customers and vendors the intervals from 01 to 50 are provided. The variants can be maintained via the menu transaction *ZCFI (releases 3.x) or /PBS/CFI (releases 4.x)* ⇨ *Customizing* ⇨ *Line layout account interval* or directly with the transaction ZFLI (3.x) or /PBS/CFI_FLI (4.x). If you want to define an own line layout variant you have to proceed as follows:

2.7.2 Overview

Determine number of lines per variant.

A variant corresponds to a document item. 9 lines at the most are possible. For example: 011-019. The first two digits indicate the variant ‚01' and the last one the line number. Each line results in an own line layout. In the above example this would be 9 lines, i.e. a line layout would have to be defined 9 times.

Allocate variant names

As a variant can contain several lines, you should allocate for each line layout of the variant (max. 9) an own name.

Define line layout

For each line layout you have to define the fields, the sequence of the output and the display format. If you do not want to display the complete length of one field, you can define the range to be displayed by the display format.

Define column heading

Define the column headings for the display of the fields per line layout.

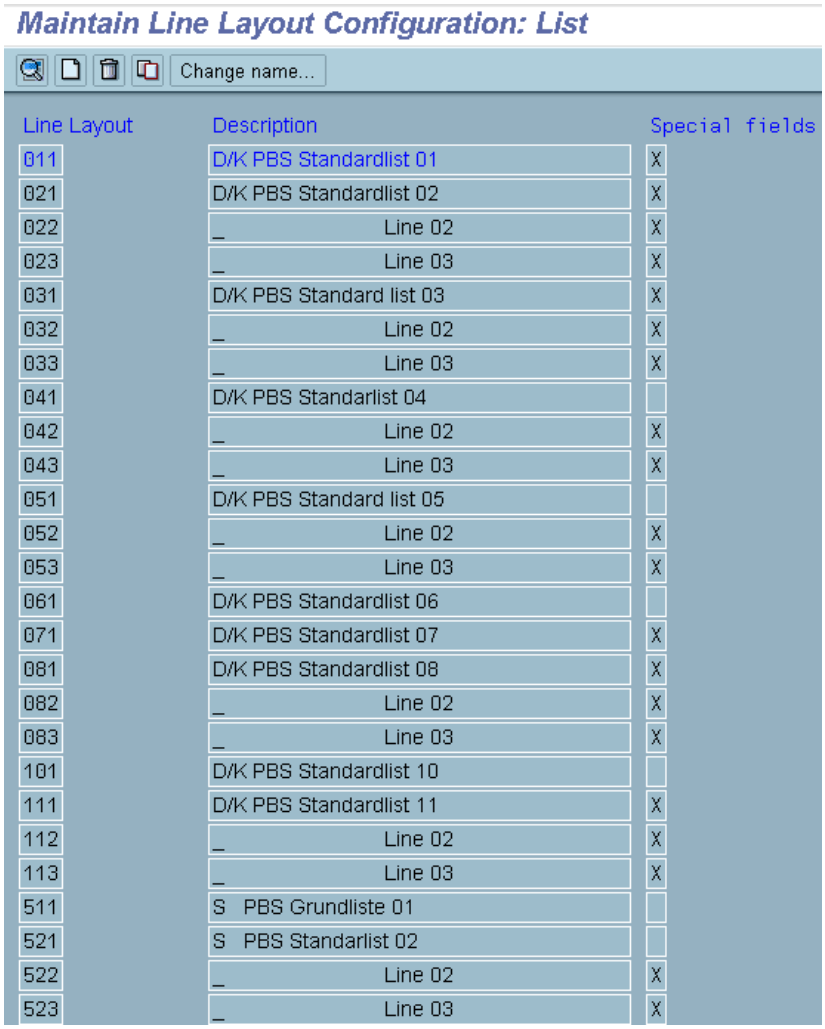

Maintain Line Layout Configuration: List
Change name...
Line Layout
Description
Special fields
011 D/K PBS Standardlist 01 X
021 D/K PBS Standardlist 02 X
022 _ Line 02 X
023 _ Line 03 X
031 D/K PBS Standard list 03 X
032 _ Line 02 X
033 _ Line 03 X
041 D/K PBS Standarlist 04
042 _ Line 02 X
043 _ Line 03 X
051 D/K PBS Standard list 05
052 _ Line 02 X
053 _ Line 03 X
061 D/K PBS Standardlist 06
071 D/K PBS Standardlist 07 X
081 D/K PBS Standardlist 08 X
082 _ Line 02 X
083 _ Line 03 X
101 D/K PBS Standardlist 10
111 D/K PBS Standardlist 11 X
112 _ Line 02 X
113 _ Line 03 X
511 S PBS Grundliste 01
521 S PBS Standarlist 02
522 _ Line 02 X
523 _ Line 03 X

Diagram 13: Maintain line layout

2.7.2.1 Details

To define a line layout please call the transaction **ZFLI** (or - 4.x: /PBS/CFI_FLI; or in the CFI menu: ⇨ *Customizing* ⇨ *Line Layout Account Interval.* A list of the already defined variants is displayed.

1. Select *Line Layout* → *Create* in the menu line.

A window is opened where you can enter the two-digit number for the variant key. In the third position, please enter the line number of the variant if you should desire several entry lines for a document item - if not please do not make an entry in this position. Finally you have to enter the name of the line layout.

Press the enter key and you switch to the screen dynpro where you enter the fields for the line layout.

Note: The procedure below is only to be used if the variant contains only one line layout.

2. Select *Edit* → *Insert* → *Insert before*.

A list of the possible standard fields is displayed where all possible BSEG fields are contained. If you want to select fields from the list of the special fields press the button *Special Fields*. This list contains the BKPF, BSEC, BSED, PAYR fields, ZZPOS fields. PBS has integrated fields which can have different values depending on the item type in the structure ZZPOS (see chapter). From the standard field list or the special field list you can select the ones requested for the line layout.

Attention: If you want to integrate the "archive indicator" (*) into your line layout please see the list of the standard fields under **"Indicator: Document already in archive?"**

3. Select a field from the field list.

The system takes the selected field for the line layout. All other fields can be inserted before or after an already selected field. The sequential order of these fields determines the order of the columns for the document display and entry.

4. Further fields

Select *Edit* → *Insert* → *Insert before* or *Insert after*. Repeat step 3 until all fields for your variant are indicated.

5. Save your result by selecting *Line Layout* → *Save*.

The system displays a message saying that a new line layout was added.

When you have defined a variant please define its usage.

1. Select *Edit* → *Usage.*

A window for the selection of the account types is opened.

2. Select the requested account types.

3. Save your entry by pressing the enter key.

2.7.2.2 Copy Function

When adding a new variant you can use the **copy function** to copy the fields of an already defined variant. In the copied variant you can enter fields or delete them. The copy function can be used instead of the insert function.

To copy a variant you have to carry out the following steps:

1. Select *Edit* → *Copy* in the menu to maintain the display functions.

A window is opened for you to indicate the key of the original and the key of the line layout to be entered.

2. Enter the key for both variants and press the enter key.

You switch over to a screen dynpro where the copied fields are displayed. As described above fields can be inserted or deleted.

3. Save the new version by *Line Layout* → *Save*.

During the copy process the system also copies the names and the column headings of the original. Therefore, you should change the texts of the copied variant. Please see the section 'Change Line Layout' to change the name and the section 'Change Column headings' to change the column headings.

2.7.2.3 Define Display Format

If you do not want to display the fields for a variant in their complete lengths, you can delimit exactly the display via the **display format**. In addition, you can define the starting position of a column via the display format.

To determine the display format you must be in the entry screen for the fields of a variant. You determine the display format by carrying out the following steps:

1. Move the cursor to the filed for which you want to define the display format.

2. Select *Extras → Display format.*

A window is opened where you can determine the exact output range of the field.

3. Enter your values.

4. Save your entries by pressing the enter key.

2.7.2.4 Maintain Column headings

You can go to the **maintenance of the column headings** either from the list of the line layout or from the list of the fields for a variant. The column headings are maintained executing the following steps:

1. Being in the list of the line layout variants, move the cursor to the variant you want to maintenance.

2. Select *Edit → Texts → Column headings*.

The screen dynpro for the column headings maintenance opened. The fields for the variants are displayed for your information.

3. Enter your column headings.

Make sure that you have already defined the sequence of the fields. The fields of the variant are displayed in this sequential order. The sequential order of the column headings must correspond to the one of the fields.

When entering the column headings you should take care if you have defined a distance to the previous field via the display format. The position of the columns defined by you is displayed in letters. The letters represent the fields you defined for the variants.

4. Save your entries by selecting *Line layout → Save*.

2.7.2.5 Change Line Layout

You can **change a line layout** by

- adding fields
- changing the sequence of the fields
- deleting fields
- changing the column headings
- changing the name

2.7.2.6 Change Fields of a Variant

If you want to **change the fields of a variant** please proceed as follows:

Call the transaction ZFLI (4.x: /PBS/CFI_FLI) or in the CFI menu ⇨ *Customizing* ⇨ *Line layout account interval*). A list of the defined variants for the line layout is displayed.

1. Select the desired variant.

You switch to a list of fields belonging to the variant. Now you can enter, move or delete fields. Before selecting one of the following functions, please move the cursor correspondingly.

Use the function *Edit* → *Insert before* or *Insert after* to enter fields.

Use the function *Edit* → *Select* to move a field to the intermediate memory, entering it later at another position in the list. Move the cursor to the field you want to move before selecting this function.

Use the function *Edit* → *Insert before* or *Insert after* to enter a field from the intermediate memory. Move the cursor to the field before or after of that you want to insert the field. After inserting, this field is deleted in the old position.

Use the function *Line Layout* → *Delete* to delete the field on which the cursor is located.

2. Save your changes via *Line Layout* → *Save*.

2.7.2.7 Change Column headings

You can **change the column headings** for each line layout by proceeding as follows:

1. Being in the list of the line variants you have to move the cursor to the variant you want to maintenance.

2. Select *Edit → Texts → Column headings*.

The screen dynpro is opened where you can change the column headings.

3. Overwrite the column headings in question.

Keep in mind the column definition. The start of a column is marked by a letter.

4. Save your changes with *Line Layout → Save*.

2.7.2.8 Change Name

To change the **name of a column layout** please proceed as follows:

1. Being in the list of the line layout variants please move the cursor to the variant you want to maintenance.

2. Select *Edit → Texts → Change Name*.

You switch to a window where you can change the name of the variant.

3. Overwrite the name.

4. Save your entries by pressing the enter key.

You return to the list of the defined variants.

2.7.2.9 Delete Line Layout

To delete a line layout you must be in the list of the defined variants. You delete a line variant by carrying out the following steps:

1. Move the cursor to the line layout you want to delete.

2. Select *Line Layout → Delete*.

A window is opened where the line layout you want to delete is named.

3. Verify that the line layout is to be deleted.

In the standard version, PBS provides line layout variants you can use as pattern to define your own variants.

The line layout technique corresponds to the SAP standard. For more details please see chapter 9-12 'Variants Line Layout' of the SAP manual 'FI Configuration and Organization'.

2.7.3 Special Fields

HWAEF	local currency in case of a foreign currency
DMSHF	local currency amount in case of a foreign currency posting
BWAER	local currency key
ZAMAF	cleared doc. no. (CI) / payment path, dunning key (OI) / 'F'(overdue)
AUFAE	clearing date for CI (cleared item) / payment date OI (open item)
AUFA2	clearing date (CI)/ payment date or BdfP + discount days (OI)
SKTGP	discount days 1 / discount percent 1
NEBTG	net amount of payment
NEBTT	text 'paymnt.amount' if payment amount NE 0, otherwise space
WKURS	currency rate in case of foreign currency
KURST	text 'rate' if field rate has value unequal zero
UEBTG	days overdue of an open item or an item cleared too late
ALTER	difference days between entry date and document date
DIFBT	difference amount between invoice/payment/discount amount
DIFTT	text 'diff.amount' if difference amount NE 0, otherwise space
GKART	offsetting account type
GKONT	offsetting account number
WKKOS	plant/cost center
AUFA1	clearing date for CI / due date OI

2.8 Logical Databases for the Evaluation of the PBS archive add on CFI

The following logical databases listed in the table below are available: in the left column of the table the logical SAP databases are listed for which PBS offers own counterparts (right column). With the PBS logical databases, not only resident data from database, but also archived data from PBS archive add on is read.

Log. DB: SAP	Log. DB: **PBS**	
SAPDBDDF	SAPDB**ZDF**	Customer database incl. PBS archive
SAPDBDDF_INDEX	SAPDB**ZCF**	Customer db incl. PBS archive only index data
SAPDBKDF	SAPDB**ZKF**	Vendor database incl. PBS archive
SAPDBKDF	SAPDB**ZVF**	Vendor db incl. PBS archive only index data
SAPDBSDF	SAPDB**ZSF**	G/L account database incl. PBS archive
SAPDBBRF	SAPDB**ZOF**	Document database incl. PBS archive
SAPDBL1M	SAPDB**Z1M**	Up to 4.0: Doc.databaseGR / GIdocs. incl. PBS archive From 4.5: only PBS GR/GI docs.
	SAPDB**Z2M**	From 4.5: Doc.databaseGR / GIdocs.incl. PBS archive

From release 4.0 the names of the databases are the same as in the SAP standard, however, added at the beginning with the name from the PBS namespace "/PBS/" - e.g.: /PBS/SAPDBBRF

The archive (i.e. to archived documents or archived document items for an account) can be accessed by secondary index whenever this is useful.

SAP original reports reading the database using logical SAP databases can simply be switched over to the use of logical PBS databases: At first, you should copy the report under a different name. Then you only need to change the entry for the logical database in the attributes: the corresponding PBS database instead of the original SAP database. The variants regarding the reports using now the logical PBS databases have to be created again.

The well-known symbol '*' shows if the document or the item was read from the PBS archive add on.

2.9 Reporting

In the following table the SAP standard programs are listed which are adjusted to the PBS archive add on. All reports can be started via PBS menu CFI -> Report -> Reporting.

From release 4.0 the reports are named like in the SAP standard, bearing as prefix the PBS namespace "/PBS/" – e.g.: /PBS/RFASLM00

From release 4.0 the are named like in the SAP standard, bearing as prefix the PBS namespace "/PBS/" - e.g.: /PBS/SAPDBBRF

2.9.1 Document Evaluations

Description	SAP Program	PBS Program	PBS Database
Reconciliation documents / Monthly debits and credits master	SAPF070	ZZCFABST	-
Gaps in Document Number Assignment	RFBNUM00N	ZZCFBM00	ZOF
Invoice Numbers Allocated Twice	RFBNUM10	ZZCFBM10	ZOF
Reconciliation analysis financial acc.	SAPF190	ZZCFABAN	-
Summarizing message	RFASLM00	ZZCFASLM	ZOF
Posting totals	RFBUSU00	ZZCFBUSU	ZOF
Document compact journal	RFBELJ00	ZZCFBELJ	ZOF
Document journal	RFBELJ10	ZZCFBJ10	ZOF
Line item journal	RFEPOJ00	ZZCFEPOJ	ZOF
Document items extract	RFBPET00	ZZCFBPET	ZOF
Sales summary tax report	RFUMSV00	ZZCFUV00	ZOF
Additional list to the sales summary tax report	RFUMSV10	ZZCFUV10	ZOF
Messages German foreign trade regulations Z2/Z3/Z4	RFAWVZ40	ZZCFVZ40	ZOF
Message German foreign trade regulation Z5a	RFAWVZ5A	ZZCFVZ5A	-
General ledger from the document file	RFHABU00	ZZCFHABU	ZOF
Open item account balance audit trail from the document file	RFKKBU00	ZZCFKKBU	ZOF

2.9.2 Customer Evaluations

Description	SAP Program	PBS Program	PBS Database
Customers cleared item list	RFDAPO00	ZZCFDAPO	ZDF
Customer sales	RFDUML00	ZZCFDUML	ZDF
Customer line items	RFDEPL00		ZDF
Customer balance in local currency	RFDSLD00		ZDF

2.9.3 G/L Account Evaluations

Description	SAP Program	PBS Program	PBS Database
Discount ledger	RFWEKO00	ZZCFWEKO	ZSF
Extended bill of exchange information	RFWEKO01		ZSF
General ledger line items	RFSOPO00		ZSF
G/L account analysis	(ABAP Query)	/PBS/CFI_GLACC_GKONT	ZSF

2.9.4 Vendor Evaluations

Description	SAP Program	PBS Program	PBS Database
Vendors cleared items list	RFKAPO00	ZZCFKAPO	ZKF
Vendor line item list	RFKEPL00		ZKF
Vendor balance in local currency	RFKSLD00		ZKF
Vendor sales	RFKUML00	ZZCFKUML	ZKF

2.9.5 Balance audit trail via fast logical databases

Concept:

The balance audit trail /PBS/RFKKBU00 has been carried out via the document database /PBS/BRF so far. That can result in long runtimes as the documents are read sequentially. This problem was solved for the customer/vendor balance audit trail by carrying out the documentation from the secondary index data. That leads to substantially shorter runtimes. However, the balance audit trail has to be executed separately for customers and vendors.

Balance audit trail	**Program old**	**LDB old**	**Program new**	**LDB new**
Customers	/PBS/RFKKBU00	/PBS/BRF	/PBS/RFKKBU00_DEBI	/PBS/DDF_INDEX
Vendors	/PBS/RFKKBU00	/PBS/BRF	/PBS/RFKKBU00_KRED	/PBS/KDF_INDEX

2.10 Euro Functionality

2.10.1 Introduction

Basically, you have to understand that the EURO is introduced in two steps. EURO Phase 1 means that the present SAP system is able to display business transaction in the new currency EURO. All SAP users are obligated to start this phase on January 1, 1999. EURO Phase 2 contains, in addition, the conversion of the current local currency to EURO and is to be realized until December 31, 2002. This change is mainly related to the conversion of the database data. The conversion of the already archived data is not supported by SAP.

Already at present, all PBS archive add ons meet the requirements for EURO Phase 1. In all SAP systems the transactions to be displayed in EURO are treated as a foreign currency. This functionality is already guaranteed by the so-called "Two-Currency-System" of the SAP standard. All transactions posted and archived in EURO are completely transferred by the PBS indexing programs into the PBS archive file system. Therefore, no activities with regard to the PBS archive add ons are necessary for EURO Phase 1.

For EURO Phase II (conversion of the local currency) after the update of the program package the necessary functionality in analogy to the SAP standard is available. To guarantee the correspondence of the SAP archive files with the data of the PBS archive file system, the data of the PBS archive file system is not converted.

During the search in the archive data the old local currency is converted to EURO when the found document is displayed. During the run time, the different lines are converted from the old local currency to the EURO. Possible rounding-off differences are displayed in a separate line. This does not apply for documents which have been archived and loaded into the PBS archive add on after the conversion of the local currency. The conversion is related to the fields of the display transactions via the secondary index and to the single document.

The fields to be converted during the runtime from the historical local currency into the EURO, is controlled by the access to the table Z9WEU (from 4.0 B: /PBS/UTIL_9WEU).

In general, this technique allows to navigate between the current local currency, the historical local currency and - if necessary - the foreign currency in the single document display.

In the PBS evaluation databases as well the data is converted during the runtime into the new local currency. All evaluations in the old local currency are displayed via the SAP standard functionality.

To be able to use this new PBS technique an update of the PBS archive add ons used is necessary, however, the PBS archive file system must not be constructed again.

In chapter 2.10.2 we have summarized the adaptations which are necessary in the environment of the PBS archive add on CFI. Under 'Activities' the tables to be maintained are listed. In chapter 2.10.3 we explain how to update these tables. Having finalized the Customizing you can check the adaptations with the help of program /PBS/CFI_EURO (3.x ZZCFERUO).

2.10.2 Adaptations Regarding the EURO Conversion

The following scenarios explain the necessary activities the R/3 user of the PBS archive add on CFI have to realize as soon as the local currency has been converted to EURO.

Scenario 1: R/3 user no data migration from R/2

- Case 1): No data was archived before the EURO conversion in R/3.
  Activities: None

- Case 2): Data was archived before the EURO conversion.
  Activities: Maintenance of table /PBS/UTIL_9WED (3.x: Z9WED)

Scenario 2: R/3 user with archive data migration from

R/2 migration objects BELA/MBLA

Case 1): The EURO conversion is realized under R/3.

Activities: Maintenance of table /PBS/UTIL_9WED (3.x: Z9WED)

Case 2a): The EURO conversion is realized under R/2; the archive data is converted.

Activities: Maintenance of table /PBS/UTIL_9WED (3.x: Z9WED)

- Case 2b) The EURO conversion is realized under R/2; the archive data is **not** converted.
  Activities: 1. Maintenance of table /PBS/UTIL_9WED (3.x: Z9WED)
  2. Maintenance of table /PBS/UTIL_9WEE (3.x: Z9WEE)

Scenario 3: New partner countries enter the European Monetary Union

Case 1): The local currency is not converted before the country has entered the European Monetary Union.

Activities: None

- Case 2): The local currency is converted before the country enters the European Monetary Union.

Activities: Maintenance of table /PBS/UTIL_9WEX (3.x: Z9WEX)

Attention:

If your company is situated in a country of the European Community and if the local currency has already been converted to the EURO, there are two different types of SAP archive files: i.e. such files created before the conversion of the local currency (e.g.: "DEM archives") and such files created after ("EURO archives"). When loading these SAP archive files into the PBS archive add on you must take care that on the same day either only DM archives or only EURO archives are processed.

2.10.3 PBS Euro Tables

2.10.3.1 Table Z9WED (from 4.0B: /PBS/UTIL_9WED)

In order to guarantee a conversion without problems the table Z9WED must be maintained in all clients where the PBS archive add on CFI is used. For each PBS application an entry is made in this table stating if the loaded archive stock contains the amounts in EURO or in the old local currency. Two dates have to be entered for each PBS archive add on:

1. Date when a SAP archive tape was loaded for the last time in the old local currency into the PBS archive add on. The parameter 'Archive in EURO' must be qualified with SPACE.

2. Date until which the loaded SAP archives are in the EURO format. The parameter 'Archive in EURO' is to be qualified with 'X'.

The date is related to the date of the run when the SAP document archive tape was merged to the PBS archive add on.

Example:

All archives loaded until 30.06.1999 still contain the old local currency. The loaded archives are in EURO.

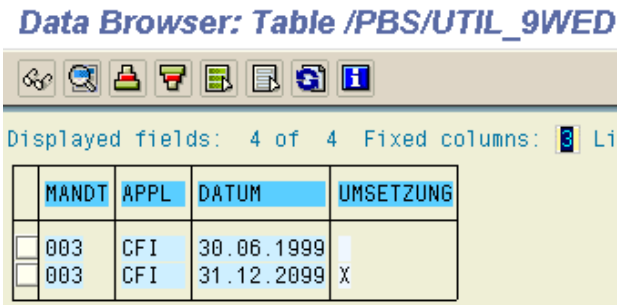

Data Browser: Table /PBS/UTIL_9WED
Displayed fields: 4 of 4 Fixed columns: 3 Li
MANDT APPL DATUM UMSETZUNG
003 CFI 30.06.1999
003 CFI 31.12.2099 X

Diagram 14: **Maintain table /PBS/UTIL_9WED**

In case you load an archive file, containing data in the old local currency, after the PBS archive has been constructed with EURO data, an additional entry must be added to the table.

Example:

All archives loaded until 30.06.1999 still contain the old local currency. Archives loaded at a later date are in EURO. On 30.12.1999 you load a SAP archive tape containing data which is not yet in the EURO format.

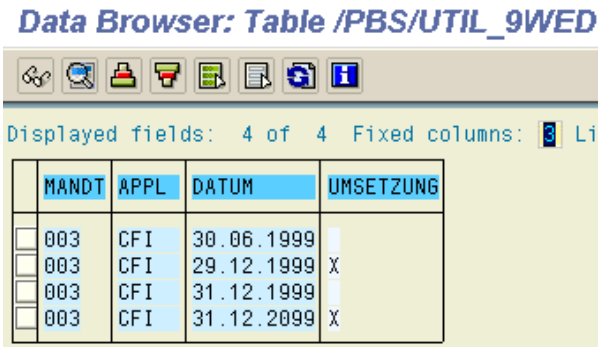

Data Browser: Table /PBS/UTIL_9WED
Displayed fields: 4 of 4 Fixed columns: 3 Li
MANDT APPL DATUM UMSETZUNG
003 CFI 30.06.1999
003 CFI 29.12.1999 X
003 CFI 31.12.1999
003 CFI 31.12.2099 X

Diagram 15: Maintain table /PBS/UTIL_9WED when archives in old local currency are indexed

2.10.3.2 Table Z9WEX (from 4.0B: /PBS/UTIL_9WEX)

Extended functionality for new member states having joined the European Monetary Union after January 1, 1999:

Instead of table Z9WED (/pbs/util_9wed) table Z9WEX (/pbs/util_9wex) is checked for the new company codes.

In order to guarantee a conversion without problems the table Z9WEX must be maintained in all clients where the PBS archive add on CFI is used. For each PBS application an entry is made in this table stating if the indexed archive stock contains the amounts in EURO or in the old local currency. Normally, two dates have to be entered for each PBS archive add on:

- Date when a SAP archive tape was indexed for the last time in the old local currency into the PBS archive add on. The parameter 'Archive in EURO' must be set to SPACE.

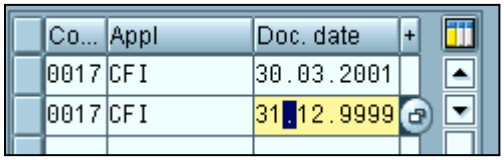
- Date when a SAP archive tape was indexed for the last time in the new local currency into the PBS archive add on. The parameter 'Archive in EURO' must be set to 'X'.

The date is related to the date of the run when the SAP document archive tape was merged to the PBS archive add on.

Example:

From January 1, 2001, Greece will be the twelfth country to introduce the EURO.

All archives loaded until 30.03.2001 still contain the old local currency. The indexed archives are in EURO.

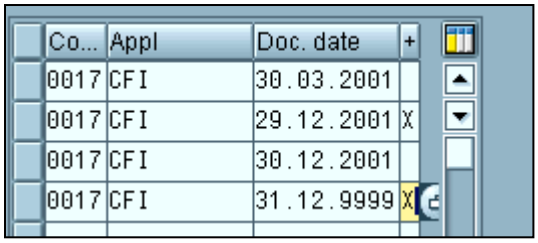


Co...	Appl	Doc. date
0017	CFI	30.03.2001
0017	CFI	31.12.9999

Diagram 16: Maintain table /PBS/UTIL_9WEX

In case you index an archive file, containing data in the old local currency, after the PBS archive has been constructed with EURO data, an additional entry must be added to the table.

Example:
All archives indexed until 30.03.2001 still contain the old local currency. Archives indexed at a later date are in EURO. On 30.12.2001 you index a SAP archive tape containing data which is not yet in the EURO format.



Co...	Appl	Doc. date	
0017	CFI	30.03.2001	
0017	CFI	29.12.2001	X
0017	CFI	30.12.2001	
0017	CFI	31.12.9999	X

Diagram 17: Maintain table /PBS/UTIL_9WEX when archives in old local currency are indexed

It is not necessary to maintain table Z9WEX (/PBS/UTIL_9WEX) if, at the time of the local currency conversion of the SAP system, all relevant company code currencies are originated from member states of the European Monetary Union.

In this case only table Z9WED (/PBS/UTIL_9WED) must be maintained.

2.10.3.3 Table T9WEE (from 4.0B: /PBS/UTIL_9WEE)

Table T9WEE must be maintained if the EURO conversion has been carried out under R/2 and the archive data has been migrated from R/2 to R/3 via DMIG object BELA respectively MBLA. If archived financial accounting documents (SAPB80U files) have already been converted EURO under R/2, table T9WEE must **not be maintained**. For each company code, the former local currency and the day of the EURO conversion is to be entered. Company codes having the same local currency can be maintained generically with '++++'.

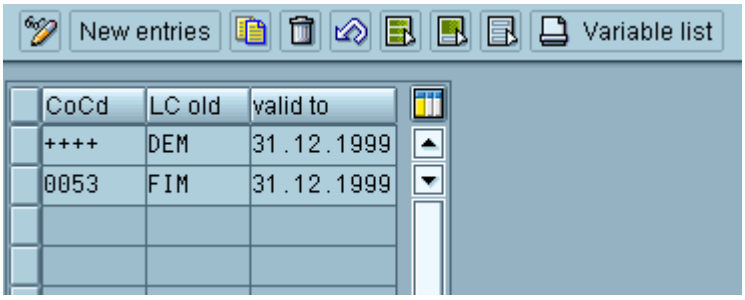


Diagram 18: Maintain table /PBS/UTIL_9WEE

2.10.3.4 Table T9WEU (from 4.0B: /PBS/UTIL_9WEU)

Table T9WEU contains for each PBS archive application all relevant fields converted to the EURO during the runtime. If you have added own EURO-relevant fields to the PBS archive add on CFI they can be added to the fields provided by PBS.

2.11 Correspondence and Internal Evaluations

Among the correspondence are all evaluations sent by letter to business partners like statements of account and open item lists in letter form. For this purpose, the following printing programs are used by SAP:

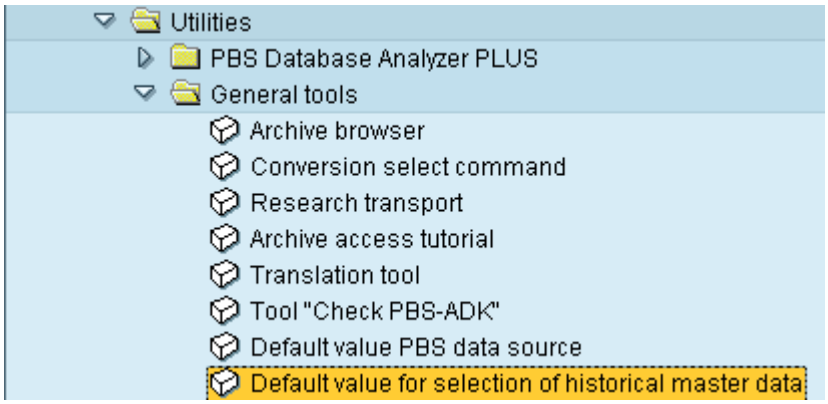
SAP name	Designation of printing program	PBS name 3.x	PBS name 4.x
RFKORD00	Advice of payment	ZZCFKO00	/PBS/RFKORD00
RFKORD10	Statement of account	ZZCFKO10	/PBS/RFKORD10
RFKORD11	Customer statement	ZZCFKO11	/PBS/RFKORD11
RFKORD20	Charges for a note	ZZCFKO20	/PBS/RFKORD20
RFKORD30	Internal documents	ZZCFKO30	/PBS/RFKORD30
RFKORD40	Individual letters	ZZCFKO40	/PBS/RFKORD40
RFKORD50	Document statement	ZZCFKO50	/PBS/RFKORD50
RFKORD60	Failed payment	ZZCFKO60	/PBS/RFKORD60

In order to be able to use the documents from the PBS archive add on also for the correspondence, please change via the customizing function OB78 the name of the printing program according to the type of correspondence. Then you can print from the PBS menu of financial accounting via *Account Display → Account Type → Account → Correspondence → Request*. Via *Periodical Tasks* the printing can be started as usual from the PBS menu or from the SAP standard menu.

2.12 Use of historical master data (from SAP Enterprise Release)

The PBS archive add on CFI not only enables the display of master data in the current format, but also historically for a chosen key date. Programs and transactions that support this function can be defined on an individual user basis for the historical display of master data. To do this, it is first necessary to define via a customizing table for which programs this function should be activated and for which user.

The table can be called up after the installation of the *PBS archive add ons* via the transaction /PBS/UTIL_HISTSL or the main PBS menu.



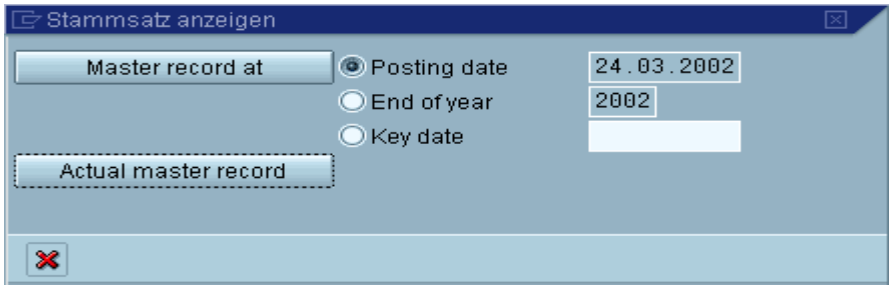
It is possible to define whether the display of historical master data should be possible per application, object name, and user. The finest level of detail for defaulting data is at user level. If no differentiation is required a “*” can be entered in the field User.

After activation, an additional selection for historical master data is generated on the selection screen of the corresponding transaction or in the report.

If the switch is activated, all master data record changes in the master record are canceled up to the specified date and replaced by the original value. If the PBS archive add on for change documents CCU is installed, all change documents that have already been archived are also taken into consideration.

The individual document display (/PBS/FB03) supports a special functionality. When double-clicking on the master record number (customer, vendor, general

ledger account), the system first branches to an additional screen where it is possible to influence the handling of the master record display.



On the one hand it is possible to branch to the current master record transaction (FK03 customer, FD03 vendor, FS03 general ledger account). On the other hand it is possible to display the master record on the posting date of the document, on the last day of the fiscal year, or on any other chosen key date. During this selection, the user does not branch to the master record transaction, but instead the master record fields are displayed in list form.

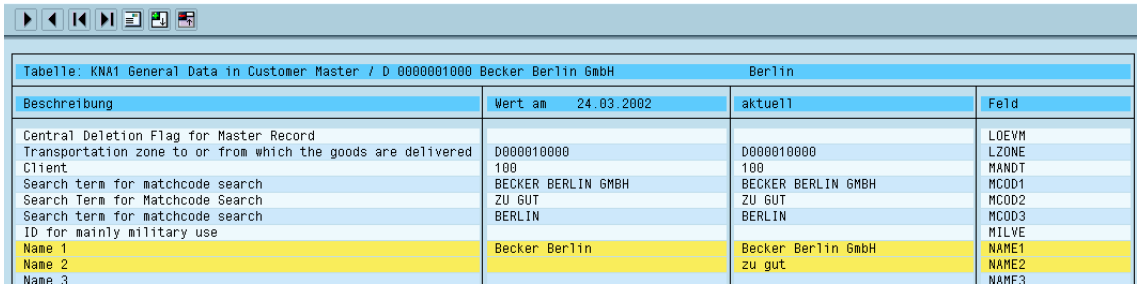


Tabelle: KNA1 General Data in Customer Master / D 0000001000 Becker Berlin GmbH Berlin
Beschreibung | Wert am 24.03.2002 | aktuell | Feld
Central Deletion Flag for Master Record | | | LOEVM
Transportation zone to or from which the goods are delivered | D000010000 | D000010000 | LZONE
Client | 100 | 100 | MANDT
Search term for matchcode search | BECKER BERLIN GMBH | BECKER BERLIN GMBH | MCOD1
Search Term for Matchcode Search | ZU GUT | ZU GUT | MCOD2
Search term for matchcode search | BERLIN | BERLIN | MCOD3
ID for mainly military use | | | MILVE
Name 1 | Becker Berlin | Becker Berlin GmbH | NAME1
Name 2 | | zu gut | NAME2
Name 3 | | | NAME3

It is possible to navigate between the segment parts via function keys.

The evaluation of historical master data for the following programs is available with the customer patch PBS_CFI_SP_14:

Program name	**Description**
/PBS/RFAUSZ00	Vendor / Customer / General ledger statements
/PBS/RFBELJ10	Document journal
/PBS/RFHABU00	General ledger from the document file
/PBS/RFITEMAP	Vendor line item list
/PBS/RFITEMAR	Customer line item list

/PBS/RFITEMGL	General ledger line item list
/PBS/RFKKBU00	Open item account balance audit trail from the document file
/PBS/RFKKBU00_DEBI	Customer account balance
/PBS/RFKKBU00_KRED	Vendor account balance
/PBS/RFUMSV00	Advance return for tax on sales/purchases
/PBS/SAPMF05L	Module pool document display/change
/PBS/CFI_LIS_AP_ITEM	Variable FI vendor line item statement
/PBS/CFI_LIS_AR_ITEM	Variable FI customer line item statement
/PBS/CFI_LIS_GL_ITEM	Variable FI general ledger line item statement
/PBS/CFI_LIS_CUSTOMER	Variable FI customer statement
/PBS/CFI_LIS_GLACC	Variable FI general ledger statement
/PBS/CFI_LIS_VENDOR	Variable FI vendor statement

2.13 Expiring Currencies

With the new year 2002 most of the currencies of the European Community are no longer valid as book money. However, documents in the former local currency are still in the SAP system. The SAP standard has been extended in so far as the former currency is no longer used when documents are posted and the document's currency is converted 'on the fly' into Euro and displayed in Euro for subsequent processes such as dunning, printing of balance confirmations.

You can decide for which subsequent process the conversion should be applied for a specific customer.

PBS has reacted on these innovations and adapted the following programs:

Program name 4.x	3.1i	Description
/PBS/BRF	ZOF	Logical Database for documents
/PBS/DDF	ZDF	Logical Database for Customers
/PBS/DDF_INDEX	ZCF	Logical Database for Customers (only index data)
/PBS/KDF	ZKF	Logical Database for Vendors
/PBS/KDF_INDEX	ZVF	Logical Database for Vendors (only index data)
/PBS/SDF	ZSF	Logical Database for G/L accounts
/PBS/CFIFDLIS	ZZCFDLIS	List of Customer Line Items
/PBS/CFIFKLIS	ZZCFKLIS	List of Vendor Line Items
/PBS/CFIFSLIS	ZZCFSLIS	List of G/L accounts Line Items
/PBS/RFEPOS00	ZZCFEPOS	Line Items Module Pool (up to 4.5)
/PBS/RFITEMAP		Vendor Line Item Display
/PBS/RFITEMAR		Customer Line Item Display
/PBS/RFITEMGL		G/L account Line Item Display
/PBS/RFKORD00	ZZCFKO00	Print Program: Payment Notice
/PBS/RFKORD10	ZZCFKO10	Print Program: Account Statement
/PBS/RFKORD11	ZZCFKO11	Print Program: Customer Statement
/PBS/RFKORD20	ZZCFKO20	Print Program: Charges for a Bill of Exchange
/PBS/RFKORD30	ZZCFKO30	Print Program: Internal Documents
/PBS/RFKORD40	ZZCFKO40	Print Program: Individual Letters and Standard Letters
/PBS/RFKORD50	ZZCFKO50	Print Program: Document Extract
/PBS/RFKORD60	ZZCFKO60	Print Program: Failed Payments
/PBS/SAPF130D	ZZCF130D	Customer Balance Confirmation
/PBS/SAPF130K	ZZCF130K	Vendor Balance Confirmation
/PBS/SAPF140		Correspondence

To use those functions the following preconditions are necessary:

1. Availability of that function by SAP hot package level (see SAP note 350530)

2. The PBS Customer Patch 3 or higher for the Second Edition of the PBS archive add on CFI

2.14 CFI – increased functionality within the GDPdU (German tax reduction law)

2.14.1 The Law

In Germany the tax system (AO) was modified by the tax reduction law (StSenkG) with effect from 1 January 2002 (StSenkG, Article 7 in the Version of 14 July 2000, published in the German Federal Law Gazette (BGBl.) 1, page 1433, on 26 October, 2000). The legal requirements for accounting, recording and storing business records (§§ 146 and 147) are laid down in this new law. All German taxpaying companies using an electronic accounting system and - in particular - all SAP users, are affected by this new regulation.

2.14.2 The interpretation of the law

The new regulations are defined in a draft letter of the German Federal Ministry of Finance (BMF letter of 6 October, 2000, the current version is from 16 July 2001). The letter's title is "Overview of the new regulation concerning the principles of data access and examination of digital documents (GDPdU)". The letter stipulates among other things that according to § 147 (6) tax law of the tax authorities, the following three ways of accessing digital documents have to be provided in the case of external auditing:

Access 1 (Z1) – indirect data access

The tax authority has the right to access directly the data processing system using a read-only access to read the stored data and, therefore, uses the hardware and software of the taxpayer or a third party to examine the stored data for the audit period, including the master data and links (data). When doing this, the authority is only allowed to access the data stored electronically for the audit period concerned using this hardware and software. This excludes any remote queries (online access) of the taxpayer's data processing system by the tax authority. The read-only access covers reading, filtering and sorting the data, if necessary, using the evaluation possibilities in the data processing system.

Access 2 (Z2) – direct data access

The tax authority can ask the taxpayer or a third party, who is able to execute a read-only access (indirect access), to evaluate the data according to its needs. The tax authority can only ask for an evaluation that is supported by the evaluation possibilities within the data processing system of the taxpayer or the third party.

Access 3 (Z3) Data access by transferring the data on data carriers

Furthermore, the tax authority can ask for a data extract on which the business records are stored for evaluation purposes. The data extract that is provided for evaluation purposes must be returned to the taxpayer or deleted after a valid tax assessment has been performed on the basis of the external auditing. The right to access data is only limited to the data that is relevant for taxation. This means that data from financial accounting, asset accounting and payroll accounting must be made available for electronic access.

If there is relevant data for the tax authority in other areas of the data processing system, this data is to be qualified by the taxpayer with regards to the recording and storage requirements and has to be made available in an appropriate way for data accessing. Within the SAP system this at least applies to sales, purchase order, material and invoice verification documents.

It is left to the tax authority's discretion whether it decides to use one, two or all three possibilities for accessing data. The objective extent of external auditing (§ 194 of the tax system) is not extended by this tax modification, meaning that only those business records that must be retained according to § 147 (1) of the tax system (AO) continue to be the subject of external auditing.

These regulations for data access are a necessary precondition for the recognition of electronic invoicing by the tax reduction law (StSenkG) according to § 14 (4) of the sales tax law (UstG, StSenkG Article 9) by digital signatures (law regarding the basic conditions for electronic signatures and for modification of other rules; this law was passed on 16 May 2001, published in the German Federal Law Gazette (BGBl.) I, no. 22, page 876, on 21 May 2001, legally valid since 22 May 2001).

Consequences for SAP users

It should be noted that the new storage requirements are already valid for the fiscal year 2001 if it ends on 31 December 2001, as the closing entries will be made in 2002. The final documentation of the posting data on a microfiche or optical data carrier in the form of lists, such as document journal, advance return for tax on sales/purchases, general ledger and open item account balance audit trail, is no longer sufficient. This also applies for previous fiscal years, where the documentation has not been created by 31 December 2001.

2.14.3 Solution

If you consider the requirements only from the R/3 user's point of view, the conditions of the Z1 and Z2 access can be met. However, many SAP users are unable to make available the data in their database for 10 years. In this case the PBS archive add ons are helpful. Mass data, which can have a negative effect on the performance of an SAP system, can be archived using CFI, CMM, CSD and CCO.

With the PBS transactions and reports, the data is available for evaluation purposes either online or as a batch operation in spite of archiving. Using the PBS long-term concept, accesses to the archive data of previous years can be managed efficiently. The standard user accesses, for example, the last three years and, if authorized, an auditor can be provided access to data from years that are even further back. You can enable batch evaluations over the last ten years.

If you archive without using either the PBS archive add ons or SAP AS, the archive information system of SAP AG, the online access for archived data is no longer possible. The archived data can then only be evaluated sequentially.

To support Z3 access (data extraction), SAP AG has decided to use the DART (= Data Retention Tool). This tool was originally developed on the basis of similar requirements in the USA. The current DART 2.7 version fulfills all requirements of the German tax authority. With the help of the DART you can store the data records that could be requested by law on an external data carrier. For this purpose, tax-relevant data of a period is copied from the SAP database and stored in sequential files. In a second step, you can generate the files that are required by the tax authorities from these DART extracts. These files can be evaluated by corresponding external audit programs.

An essential characteristic of the DART standard solution is that its unlimited functionality only applies to SAP database data but not to archive data. PBS has developed an extended DART component with the name CDART in cooperation with SAP. Using this tool, you can select simultaneously database and archive data directly from the SAP archive files.

In the case of the PBS archive add on CFI the functionality regarding the data transfer on external data carriers (Z3 access) was integrated in a way that the export of financial accounting data can be executed 'on demand' from archive and database data at any time. Please see the detailed description in the following chapter 'Data export'.

PBS solution portfolio within the GDPdU

Access type	PBS products	Features
Z1	PBS archive add ons CCO, CCU, CFI, CHR, CMM, CMT, CPCA, CPM, CPP, CPR, CSD, CSL, CWM	Data access to archive and DB Dialog transactions FI standard reporting Customer-specific reporting PBS long-term archiving concept
Z2	PBS archive add ons PBS Fiscal Year Reporter	Data access to archive and DB Dialog transactions FI standard reporting Customer-specific reporting PBS long-term archiving concept
Z3	PBS extended DART PBS archive add on CFI	DART extracts from archive and DB ADK files without DB reloading process Data export via variable ABAP extract

2.14.4 General document evaluations within the access types Z1 and Z2

The selection possibilities in the document reporting were extended. So far you could delimit the report data to be selected via the document database /PBS/BRF only via the fields of the document header and the select options in the report. From customer patch 4 of the second edition this limitation has been removed. From now on, you can delimit the selection for each field from the document header (table BKPF), the document item (table BSEG) and the tax line (table BSET).

In case of a tax audit the documents to be checked can be selected and evaluated easily.

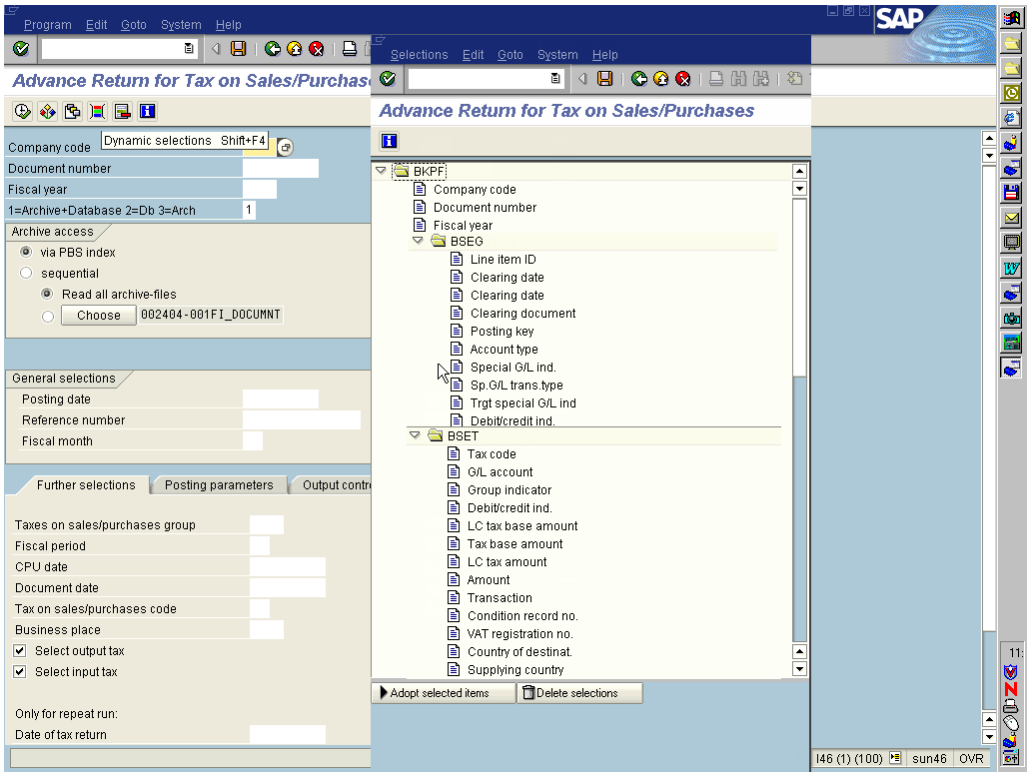


Diagram 19: Dynamic selections

However, in practice it has turned out that the SAP standard reporting does not fulfill all requirements for the layout of the documents/items which were selected. PBS provides now a variable document extract tool which enables you to select without selections with a free list definition. The program is called /PBS/CFIFPLIS and can be executed via the PBS menu, the transaction /PBS/CF_FR26 or directly via the transaction SA38 / SE38. Besides the free field selection from document header and item the list can be displayed in two ways:

1. in document form,

i.e. the requested fields for a document are displayed from the header line (table BKPF) and all corresponding document items (table BSEG). The header line and all items are displayed for each document.

2. as item list,

i.e. each item is treated separately. The advantage is that the totals can be made e.g. via account types. You can add each item line with the essential fields from the document header (document date, document type, reference document number, etc.).

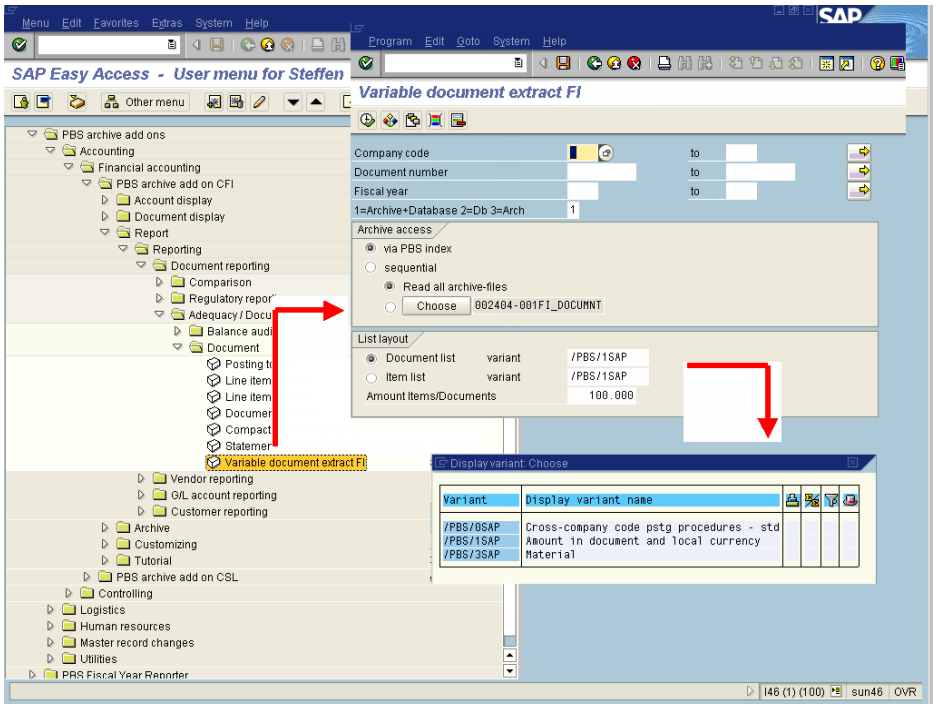


Diagram 20: Navigation via the PBS Easy Access Menu

The layout of the list is controlled via the ABAP list viewer (ALV).

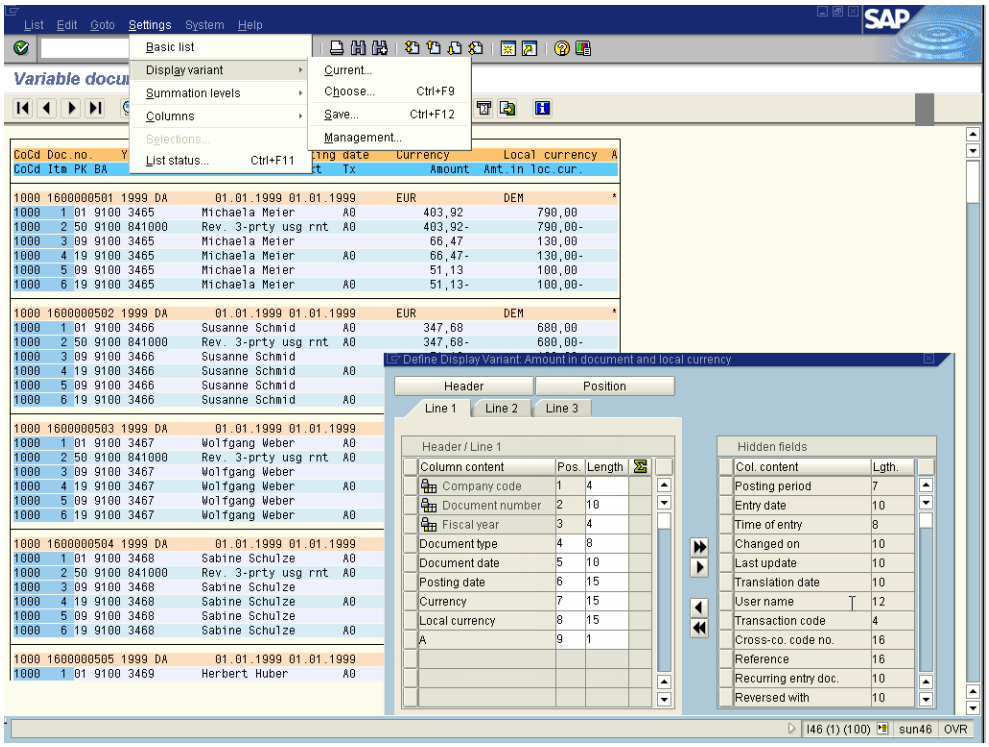


Diagram 21: Maintenance list variants

The program /PBS/CFIFPLIS is available from SAP release 4.x as the general list viewer from SAP as only introduced in that release. In the field selection the fields of the tables RFPOS, BKPF, BSEG and BSET are available. If a plaintext in the field selection is not displayed, switch to the internal name via the right mouse button and selection of the function key ‘Technical field names’. If the meaning of the field is not clear at once, find out the function of the field via the data dictionary for above mentioned tables.

Important Note:

For technical reasons all selected documents / items are stored temporarily in an internal table and then prepared. Therefore, delimit the number of items to be selected by entering details in the selection delimitations / free delimitations and by the parameter number of items to be selected. **If not all items could be selected, a warning message is displayed.**

2.14.5 Special authorization check

According to § 147 sec. 6 tax law [version from law for reduction of tax rates and for reform of company taxation (German tax reduction law – StSenkG) of 23 Oct. 2000 German Federal Law Gazette I 2000, page 1433] [coming into force on 27 Oct. 2000] tax auditors are allowed to execute directly SAP transactions in future. However, the access to the SAP system and the stored data should be treated restrictively in this respect, so that special authorization checks will be executed in future. Please see note 445148 for defining those authorizations. You can allocate the role 'tax auditor' to a user. This user is only allowed to execute certain reports for a predefined reporting time frame.

The supplementary authorization check was transferred to the PBS programs. No additional customizing is necessary.

2.15 Data Export

2.15.1 In general

Tax requirements make it necessary that SAP data is made available for tax authorities on external data carriers. This is not only the case in Germany (extension of the German GDPdU) but also in North America. If the extract is made from the SAP system, the data is analyzed and evaluated by PC analysis programs (e.g. IDEA from audicon or ACL from ACL Services). Besides the possibility of using the PBS archive add on CDART these requirements concerning the financial accounting data can be fulfilled directly from the PBS archive add on CFI.

Concept

A reporting pool supplied by PBS that selects the data via logical databases or direct Select statements from the SAP System and exports them to a sequential file in the Unix/Windows NT environment is used as the basis for the extracts from the SAP System. You can define the fields to be exported via the ABAP List Viewer (SAP-ALV). The created file can be further processed by a PC analysis program after transfer to the PC environment. The usual SAP standard format AIS (Audit Information System) has been selected as the data format.

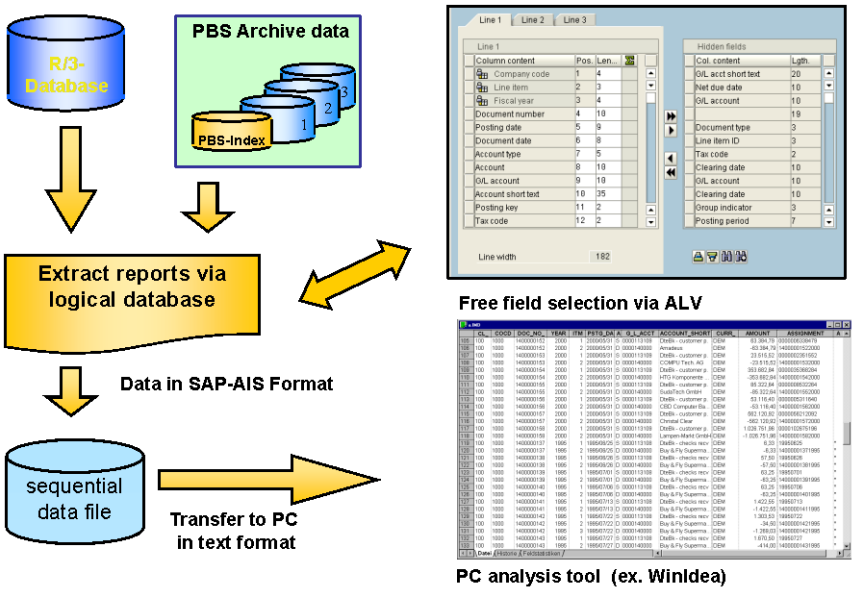


Diagram 22: Concept for exporting data

Data format:

The SAP AIS format has the following structure

Line type		Characteristic value
Header	1	Field name
	2	Description
	3	Field description
	4	Data type (C,N,P,I,D,T,F) C = text, N = numeric text on the left filled with zeroes, P = packed (number of digits = field length * 2 - 1) This is the SAP internal type. The format [-]digits[,|.digits] is used in the data records. Example: Type P length 7 decimal places 2 results in -12345678901.23, I = integer, D = date with format DD.MM.YYYY, T = time with format HH:MM:SS, F = floating point number.
	5	Field length
	6	Number of decimal places
	7	Currency code or quantity indicator (F,W,M,E) A currency unit field always follows a currency amount field. A unit of measure field always follows a quantity field. F = currency amount, W = currency unit, M = quantity, E = unit of measure
	8	Special field types (R,C,P,M) R = rank (statistics), C = counter (statistics), P = percentage (statistics), M = mean value (statistics)
Data line	9	Data records

In general:
The field delimiter is a TAB (hex code x'09').

The interface format is agreed between SAP AG and the following suppliers of revision software for external and internal auditors:

- A C L Services Ltd., Vancouver BC, Canada http://www.acl.com/en/default.asp
- AUDICON GmbH, 70565 Stuttgart http://www.audicon.net/
- (I D E A) http://www.caseware.com/home.asp

Safety

After the export the data leaves the SAP environment. The SAP authorization concept no longer functions as the data is stored in a readable format
- in the file system of the target computer (c:\...)
- in the file system of the application server (d:\usr\sap\...). Protect the data against unauthorized access.

2.15.2 Description Z3 data access

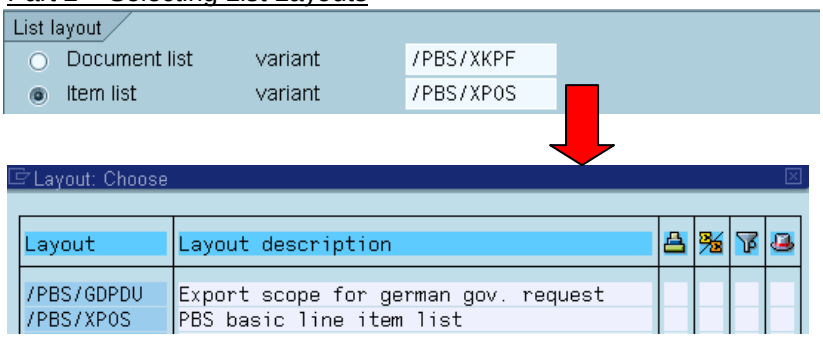
Description of selection interface

In general, the selection screen of each export program in the reporting pool provided consists of three parts:

Part 1 – Selections Influencing the Scope of Selection

In this part the selection options are provided from the logical databases or the report assigned to the respective report.

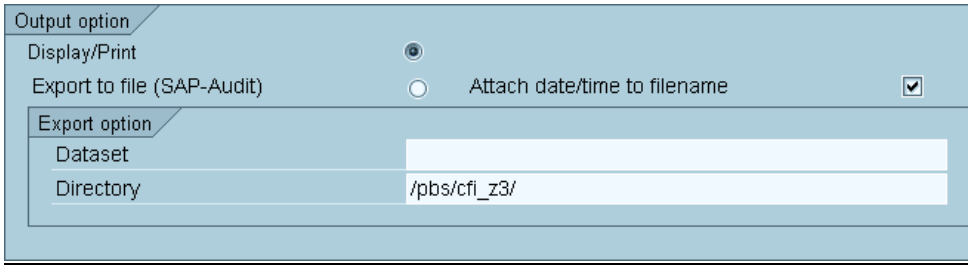
Part 2 – Selecting List Layouts



A list layout contains all fields that are to be displayed from the selected data volume. The list can be defined via SAP-ALV (ABAP List Viewer) within an export program and can be stored under a separate name. Several list variants are possible for each export program in order to meet different requirements. One list definition each is supplied with the PBS standard. Please see the standard documentation for more information about the SAP-ALV functions.
To create a list for an export program, first execute the report in dialog using the option "Display/Print" (see below). The data volume to be selected should be kept low. You can then define the scope of the list via the function keys *Settings → Layout → Change.* You can then save the list variant via *Settings → Layout → Save.* If the list is created in a test system and then needs to be transferred to the production system, include the layout in a transport request via *Settings → Layout → Layout administration → Layout → Transport.*

Note:
In general the width of a list is limited due to the number of bytes or number of columns. This means you usually cannot select all fields at the same time in one list definition. Field selection is thus essential. From customer patch 7 this problem can be avoided when using the PBS export monitor.

Part 3 – Output option



In the selection screen, you can always decide whether the selected data should be displayed as an ALV list or transferred to the specified export directory. If the selection volume is large, the process should be carried out in the background. During the data export the following is checked before execution:

a) whether the specified directory exists
b) whether the specified directory can be written to
c) whether the specified file name already exists. If this is the case, the end user can decide whether the existing file should be overwritten or whether another file name should be assigned.

The system issues export statistics after each export:

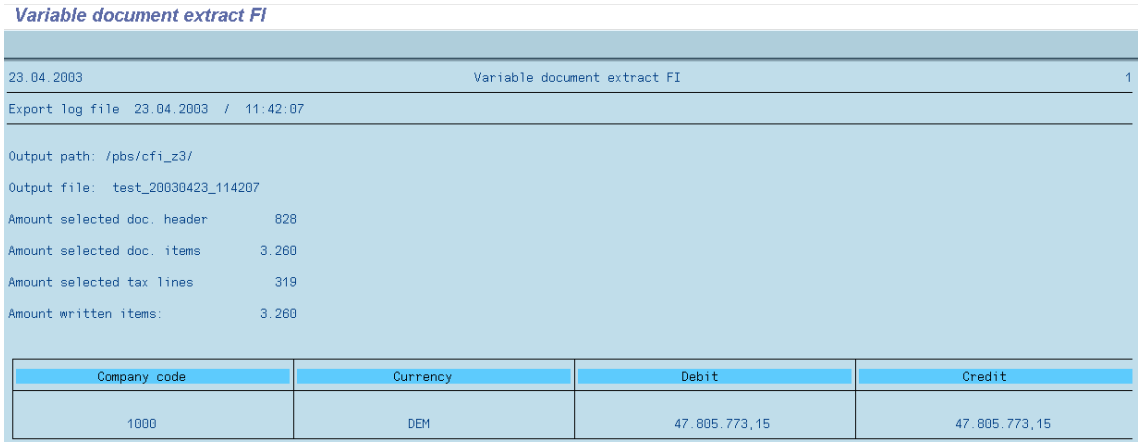


Diagram 23: Export log

Size of the export file

The size of an export file depends on the number of items to be selected and the width of the selection list. You will see this information when you display or change a layout. In principle, the disk space can be determined as follows:

(number of items X line width of the layout) + 2000 bytes header record SAP-AIS

The file size of the program is limited to 600 MB to enable the data to be transferred to a CD. If the data volume to be selected is greater, subsequent files are created with name extensions Vxxxx (xxxx = sequential number). From CFI Customer Patch 15 the file size can be selected individually. The interval ranges from 1 MB to 8192 MB. The file size is maintained using transaction /PBS/CFI_Y20 or the menu item → Data Export Interface → Administrative data → Maximum file size Z3 access. If a value is not specified, it is assumed that the file size is 600 MB.

Authorization concept

The user must basically have the authorization to execute reports. If access is via the PBS menu, additional authorizations for the transactions beginning with /PBS/CFI are required. Additional authorizations for accounts, company code, business areas etc. need not be defined, as in this case the standard authorizations from the corresponding database are checked. Authorization for the SAP standard transaction SE16 (Display table contents) is still required for the general table export described below. Using the export monitor (chapter 2.15.3) the authorization for the archiving object FI_DOCUMNT is necessary.

Transferring Files into the PC Environment

Once the generation of the extract is completed, the files from the Unix/Windows NT server must be transferred to the PC environment in **binary mode** (ftp> bin). The Data Export Interface can also be used for AS400 systems from customer patch 9. Transfer must therefore be performed as follows:

From	To	Mode
Unix/Windows NT	PC	**BINARY MODE**
AS400	PC	**ASCII conversion**

The system administrator is generally responsible for the transfer of the extracted data via FTP. The transfer is performed with tools that are independent from the SAP system upon request by the competent department.

Alternatively, with customer patch 4 of the PBS archive add on CFI, an FTP file transfer is also available via the PBS transaction /PBS/CFI_FTP in the SAP system. The user authorization for the SAP standard transaction CG3Y is a prerequisite for the transfer. The PBS transaction /PBS/CFI_FTP can be called via the PBS menu → PBS archive add on CFI → Data Export Interface → Administration → FTP Download AIS Files.

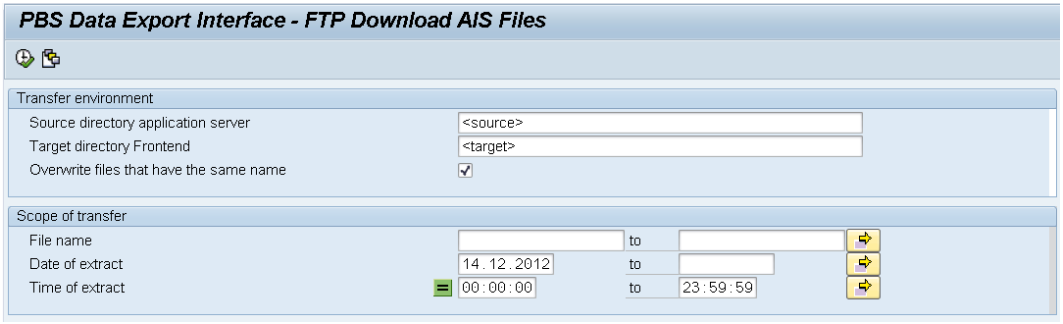


Diagram 24: Selection screen FTP download AIS files

Subject to the limitations of the block “Scope of transfer” AIS extract files can be selected for the FTP transfer and the FTP transfer can be executed via button .

To enter an individual default value for the source and target directories, the end user can use the parameters /PBS/CFI_SOURCE (source directory) and /PBS/CFI_TARGET (target directory), which can be defined with a parameter value in the user master record.

The administrator can limit the selection of the source and target directories by maintaining the parameters

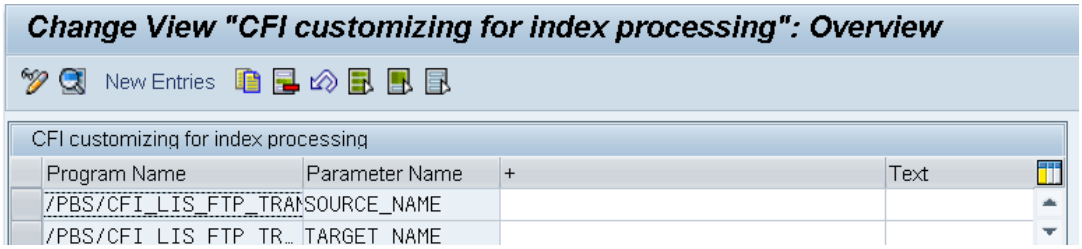


Diagram 25: Directory restriction via table /PBS/CFI_CUSTOM

in table /PBS/CFI_CUSTOM.

After completion of the data transfer, the AIS files can be deleted from the source directory of the application server. The user authorization for the SAP standard transaction CG3Y and the authorization S_DATASET are a prerequisite for the transfer. The PBS transaction /PBS/CFI_AIS_DEL can be carried out via the PBS menu → PBS archive add on CFI → Data Export Interface → Administration → Delete AIS Files.

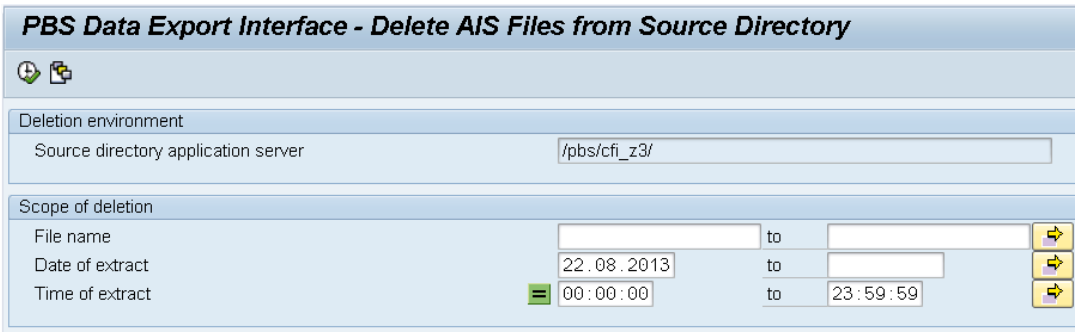


Diagram 26: Selection screen Delete AIS Files

The administrator can limit the selection of the source directory by maintaining the parameters

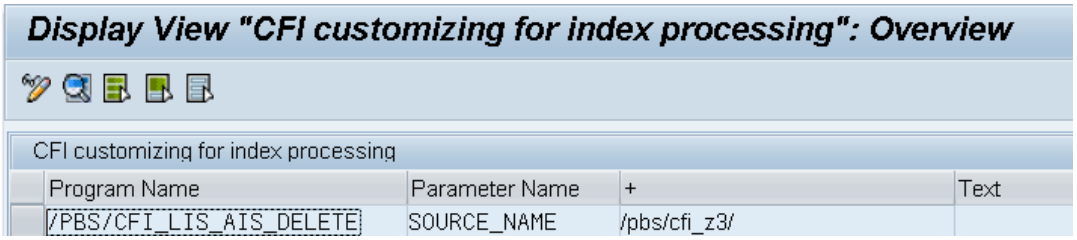


Diagram 27: Directory restriction via table /PBS/CFI_CUSTOM

in table /PBS/CFI_CUSTOM.

Further processing in the PC analysis programs

The extract stocks can be further processed by indicating a file format in the usual analysis programs available.

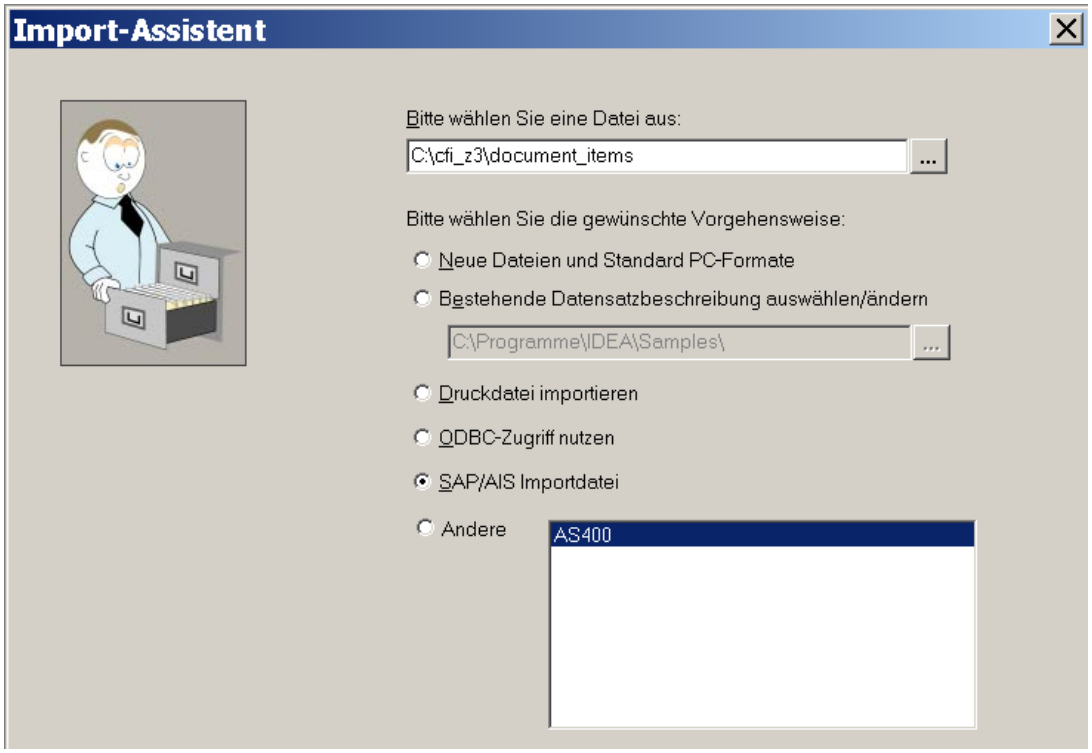


Diagram 28: Definition of the file format (in this example in the PC program Idea)

Settings for decimal and thousand separators

Decimal places are separated by a full stop '.' in amount fields in the extract files of the PBS Database Export Interface. Thousand separators are not used for the amounts. For correct display of amount fields this must be made known to the PC analysis tool IDEA during file import. This only applies if the data is imported via the IDEA import assistant. It is not required for processing via the SmartX interface (see chapter 2.15.5).

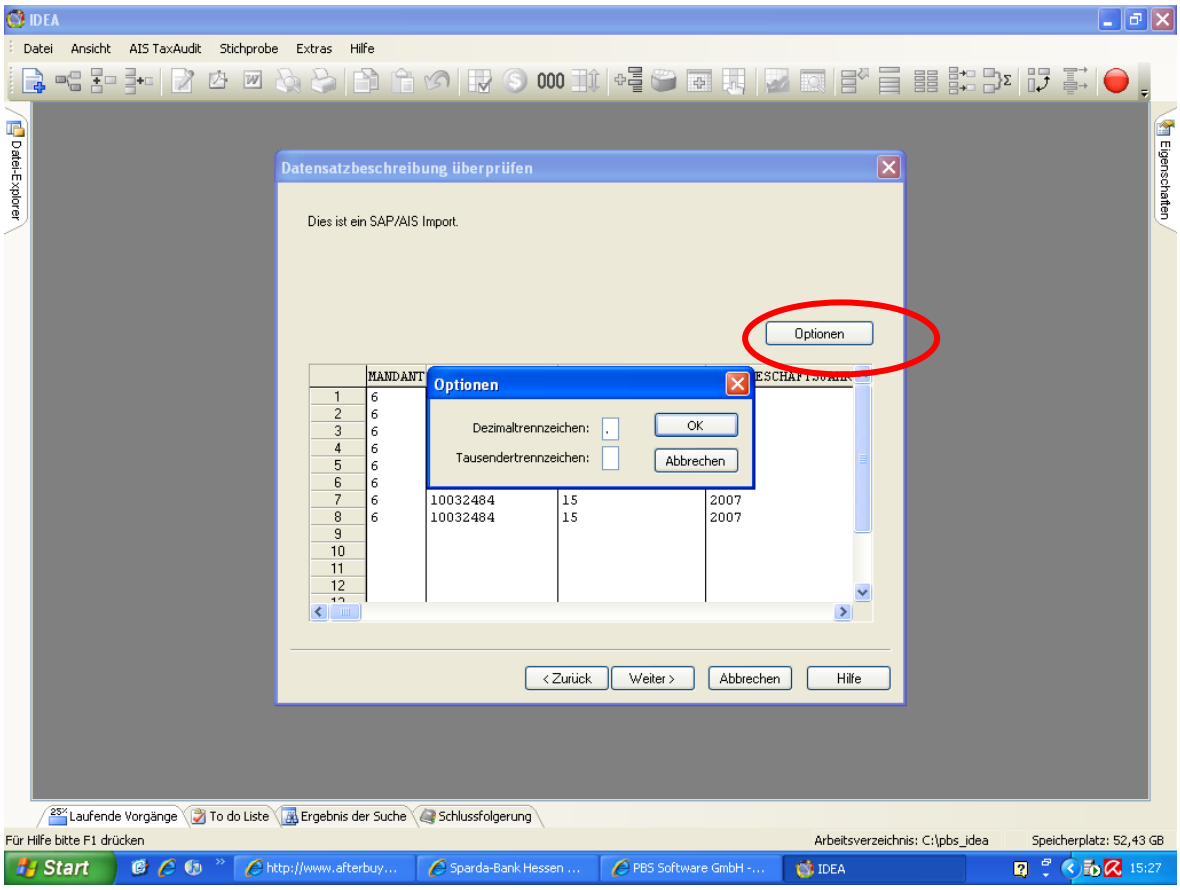


Diagram 29: Determination of decimal and thousand separators

Importing in IDEA via – *File → Import assistant → Import to IDEA → SAP/AIS -> Select file -> Continue ->Options.*

The procedure above is valid for the IDEA version 7 and higher. For lower releases the setting can be made via *View → Options → Country settings.*

An analog procedure is also necessary for the processing via Microsoft Excel. Here the setting is made via *Open file → twice 'Continue' until the data preview and there click on button "Further..." (options).*

With the PC analysis program you have many possibilities to check the extracted data whether they are factually consistent.

	KURZTEXT_KONTO	BS	ST	WÄHRG	BETRAG	HWÄHR	BETRAG_HAUSWÄHR	ZUORDNUNG	A
115	DteBk (Deb-Geldeing)	40		DEM	562.120,92	EUR	287.407,86	0000056212092	
116	Christal Clear	15		DEM	-562.120,92	EUR	-287.407,86	14000001572000	
117	DteBk (Deb-Geldeing)	40		DEM	1.026.751,96	EUR	524.969,94	0000102675196	
118	Lampen-Markt GmbH	15		DEM	-1.026.751,96	EUR	-524.969,94	14000001582000	
119	DteBk (Scheckeing.)	40		DEM	6,33	EUR	3,24	19950625	*
120	Buy & Fly Supermarkt	15		DEM	-6,33	EUR	-3,24	14000001371995	*

Diagram 30: Item transfer in IDEA

Navigation

Executing individual extract programs can be done via the export monitor (Chapter 2.15.3). In order to do this go to master data respectively export of transaction data via the PBS menu *Accounting → PBS archive add on CFI → Data Export Interface → Export monitor.* Up to release 4.5 (including 4.5) the data can be accessed via *PBS archive add on CFI → report selection → Export monitor.*

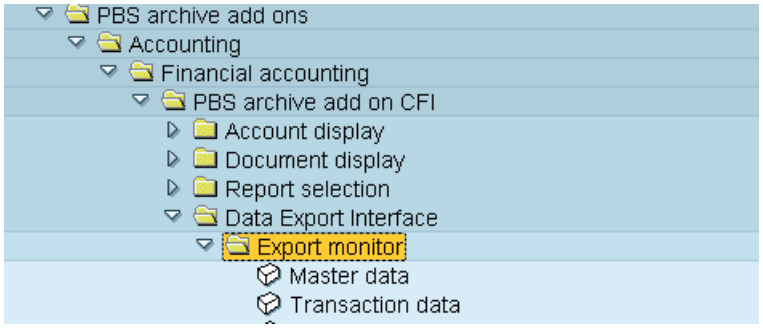


Diagram 31: CFI menu data export

In the export monitor relevant data exports are grouped together in an overview screen. From this overview it is possible to start individual data extracts separately via function ‘execute’. Before going to individual data extracts enter the storage path for the data which is to be exported in the field file directory.

Important note:

In the export monitor for the transaction data the archive data is only taken into account from the installed PBS archive add ons, if this data is exported via the export monitor (see chapter 2.15.3). During single exports only database data is taken into account via button ‘execute’.

Scope of the data to be extracted

The reports supplied by PBS can assist in meeting the legal requirements with regard to the data that needs to be extracted. The scope of selection provided by PBS should only be considered as a proposal and can be extended if required. The overview of export programs lists the database tables from which data can be extracted. In general, following the recommendation of the German SAP user group e.V. (DSAG), PBS recommends to export the following additional tables:

Financial accounting:

- **T003** Document type
- **T003T** Document type name
- **T007A** Tax key
- **T007S** Tax code name
- **T001** Company code
- **TGSBT** Business area name
- **TBSL** Posting key
- **TBSLT** Posting key name

Asset accounting:

- **TABW** Transaction types of the asset accounting
- **TABWA** Transaction types / Depreciation areas
- **TABWG** Transaction types groups
- **TABWH** Name asset transaction type groups
- **TABWK** AM transaction types for posting of proportional values and depreciation
- **TABWR** Name of asset history sheet group
- **TABWT** Transaction type texts of asset accounting
- **TABWU** Special treatment of retirement
- **TAPRFT** Text table for investment profile
- **TAPRF** Investment measure profile for asset under construction and depreciation simulation

These recommended tables and all further tables which the tax authority may request, can be provided from the PBS menu via the function → *Customizing data / Variable table extract.*

Besides the possibility to export individual tables, a table pool was created for financial, asset and material accounting, which corresponds with the recommendations of the German "SAP User group e.V." (DSAG). The export of a table pool should be made in the background. The file name is defined automatically and consists of the table name, the date and the time of the export. Language dependent entries during the export of a table pool are only made in the logon language.

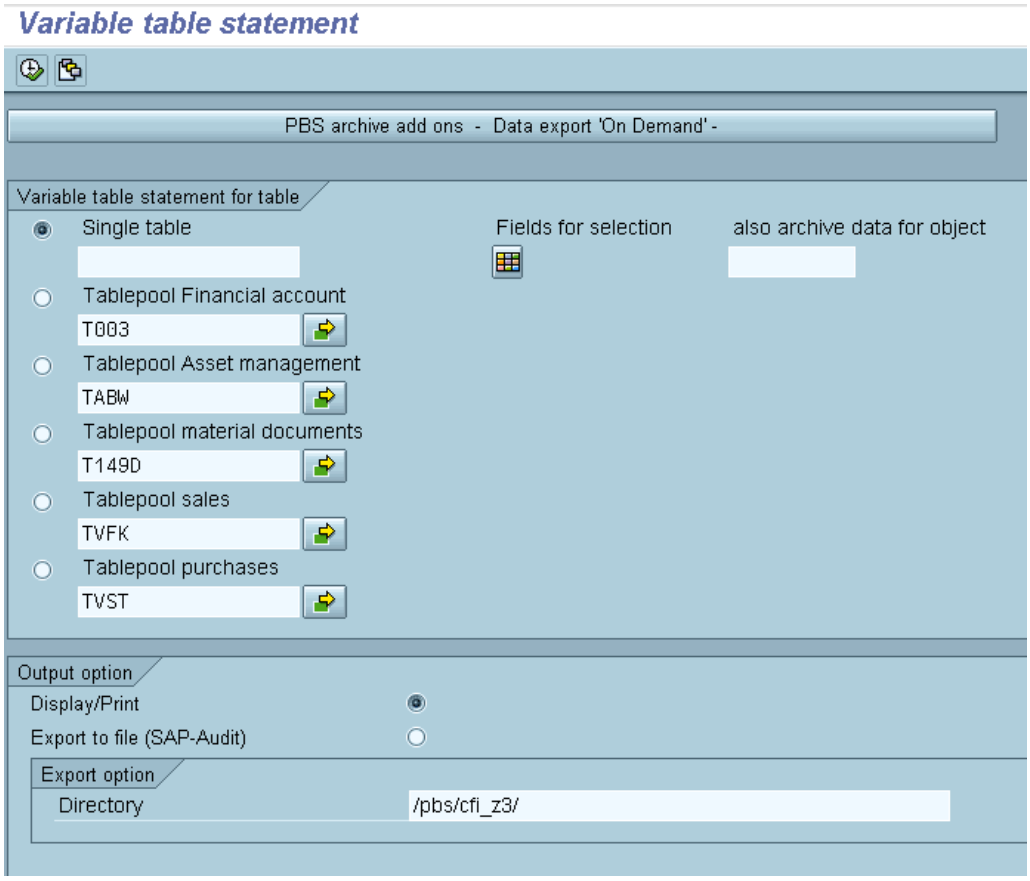


Diagram 32: Generate table extract

The export program is generated according to the table requested during an export of an individual table. Then a layout list can be created as described before and the data can be exported.

If data for a table is archived, the corresponding archiving object can be indicated. Furthermore, you can individually select and delimit the data stock via the function 'Fields for selection'.

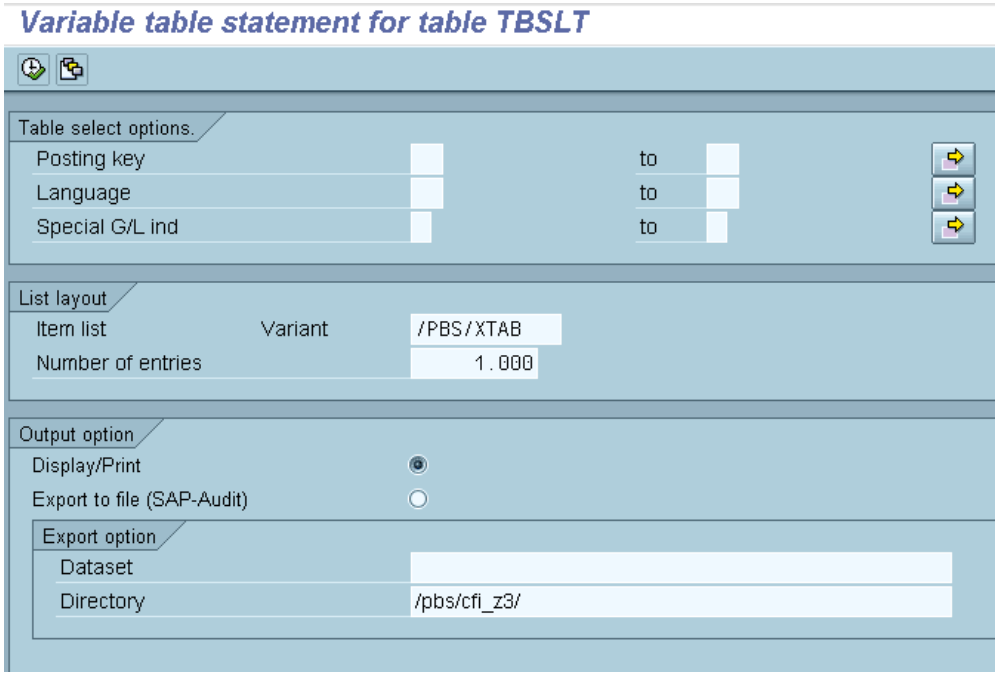


Diagram 33: Generated table export program

Before the first data export

Important:
Customers with SAP releases 4.0 and 4.5 have to generate the export structures. For this purpose, you have to execute the program /PBS/CFI_LIS_GENERATE. The generation should be executed only once. If one of the above mentioned database tables has changed, generate again. The same is if the structures defer from each other in the test and production system.

Recommendations for the data export

- **Defining ALV layouts**

  Several database tables are sometimes used in one export structure in the export programs. It might occur that fields are displayed several times when defining the list layout, as they are included in each database structure. To distinguish these fields, the technical field names are supplemented by a field extension indicator (see table overview of export programs). Use the right mouse button and the function key 'Technical field names' to switch to the internal name between field name and technical field name.

- **Single-line lists for export on PC**

  List of several lines can be created in the layout definition. If one list variant is to be used for the data export, only single-line lists are permissible.

- **Default value file path**

  You can define a default value in the user master for the file path via the parameter ID '/PBS/CFI_LIS_PATH'.

- **Termination data export with the message 'Variant was not found'.**

  The specified layout in which the fields to be extracted have been defined does not exist or was not saved when the layout was created.

- **Termination PC analysis program during import of the SAP data with the message 'SAP/AIS file is invalid'.**

  During the transfer of the export files from the Unix/Windows NT environment to the PC environment the transfer was mistakenly executed in ASCII mode instead of BINARY mode or no ASCII conversion was carried out under AS400.

- **Release 4.0/4.5. List output contains hieroglyphs (such as #)**

  It seems that the export structures do not fit to the data table structures. Regenerate the export structures with the program /PBS/CFI_LIS_GENERATE.

- **Termination during dialog processing with message ‚MOVE_TO_LIT_NOTALLOWED_NODATA'**

  A field variant is used that either has more than 1020 bytes or more than 90 columns. Such variants are only permissible for data export and cannot be used in dialog.

Export programs

In the following table those programs are listed which support the export of data from the SAP system using the PBS archive add on CFI. Asset accounting data is not selected via the PBS archive but via the SAP standard.

Program name /PBS/CFI_LIS	Description Variable....	Logical Database	Table	F*	Description
Financial accounting – master data -					
VENDOR	vendor list	/PBS/KDF	LFA1	_A	vendor master in general
	master data		LFAS	_T	EU taxes
			LFB1	_B	vendor master company code
			LFB5	_M	reminder data
			LFC1	_1	transaction figures
			LFC3	_3	special general ledger transactions
CUSTOMER	customer list	/PBS/DDF	KNA1	_A	customer master in general
	master data		KNAS	_T	EU taxes
			KNKA	_L	credit limit
			KNB1	_B	customer master company code
			KNB4	_Z	payment history
			KNB5	_M	reminder data
			KNC1	_1	transaction figures
			KNC3	_3	special general ledger transactions
GLACC	G/L account list	/PBS/SDF	SKA1	_A	G/L account master in general
	master data		SKB1	_B	G/L account master company code
			SKAT	_T	G/L account text
			SKC1A	_1	transaction figures local currency
			SKC1C	_3	transaction figures foreign currency
Financial accounting – transaction data -					
ITEM	item list	/PBS/BRF	BKPF	_K	document header
			BSEG		document item
			BSET	_T	tax line
			BSED	_D	bill of exchange line
			BSEC	_C	CPD line
ITEM_TTXY	External Tax		TTXY		External tax information
ITEM_COFIS[DB)]	reconciliation ledger FI/CO		COFIS		actual line item for reconciliation ledger
ITEM_PAYR[DB)]	payment documents		PAYR		payment medium file

*) field extension indicator

DB) only database data

Program name /PBS/CFI _LIS	Description Variable....	Logical Data-base	Table	F*	Description
Financial accounting - open items -					
AR_ITEM	open item list customer	/PBS/DDF	BSID	_D	secondary index customer
			WITH_ITEM	_T	withholding tax info
AP_ITEM	open item list vendor	/PBS/KDF	BSIK	_K	secondary index vendor
			WITH_ITEM	_T	withholding tax info
GL_ITEM	open item list G/L account	/PBS/SDF	BSID	_S	secondary index G/L account
Financial accounting - document changes -					
CHANGES_ITEM	document changes		CDHDR		change document header
			CDSHW		change documents
Asset accounting - master data -					
ASSET[SAP)]	asset list	ADA	ANLAV	_A	asset in general
	master data		ANLV	_V	insurance data
			ANLZ	_Z	value-dated asset assignments
			ANLB	_B	depreciation parameter
			ANLCV	_C	assets value fields
			ANLP	_X	assets period value fields
Asset accounting - transaction data -					
ITEM_ASSET[SAP)]	asset item list	ADA	ANEK	_K	document header
Material accounting - master data-					
MATERIAL[DB)]	Material master	MSM	MARA	_A	General material data
			MARM	_M	Quantity unit
			MBEW	_B	Material evaluation
			MARC	_C	Plant data
Material accounting - transaction data -					
ITEM_MATERIAL	material items	/PBS/Z2M	MSEG		Document segment: Material
			MKPF	_K	Header: Material document
ITEM_EKKO[CMM)]	purchase orders		EKPO		Purchasing document item
			EKKO	_K	Purchasing document header
Cost accounting - transaction data -					
ITEM_COBK[CCO)]	line items		COEP		CO object: Line items
			COBK	_K	CO object: Document header
ITEM_VBPA[CSD)]	sales partners		VBAP		Sales document: Item data
			SADR	_A	Address Management: Company Data
ITEM_KONV[CSD)]	conditions		KONV		Conditions (transaction data)

*) field extension indicator

[DB)] only database data

[CSD)] archive data only via PBS archive add on CSD

[SAP)] archive functionality only via SAP standard

[CMM)] archive data only via PBS archive add on CMM

[CCO)] archive data only via PBS archive add on CCO

Program name /PBS/CFI _LIS	Description Variable....	Logical Data-base	Table	F*	Description
Sales - transaction data -					
ITEM_VBRK[CSD)]	invoices		VBRP		Billing: Item data
			VBRK	_K	Billing: Header data
ITEM_VBAK[CSD)]	purchase order		VBAP		Sales document: Item data
			VBKD	_D	Sales document: Business data
			VBAK	_K	Sales document: Header data
ITEM_LIKP[CSD)]	delivery notes		LIPS		Delivery: Item data
			LIKP	_K	Delivery: Header data
ITEM_VBPA[CSD)]	sales partner		VBAP		Sales document: Partner
			SADR	_A	Address
ITEM_KONV[CSD)]	Conditions		KONV		Conditions (Transaction Data)
ITEM_EIKP	Foreign trade		EIKP		Foreign trade: Header
			EIPO		Foreign trade: Item data
Cost accounting - master data-					
CSKS	Cost center master		CSKS		Cost center master
CSKA	Cost element		CSKA		Cost element master
			CSKB		Cost element master
Profit Center - master data-					
CEPC	Master data		CEPC		Profit center master
Activities - master data-					
CSLA	Master data		CSLA		Activity master
Master data changes					
CHANGES[CCU)]	Master data changes		CDHDR		Change document header
			CDSHW		Change documents
Customizing					
REFERENCE_POOL [DB)]	General table contents				

*) field extension indicator

[DB)] only database data

[CCU)] archive data only via PBS archive add on CCU

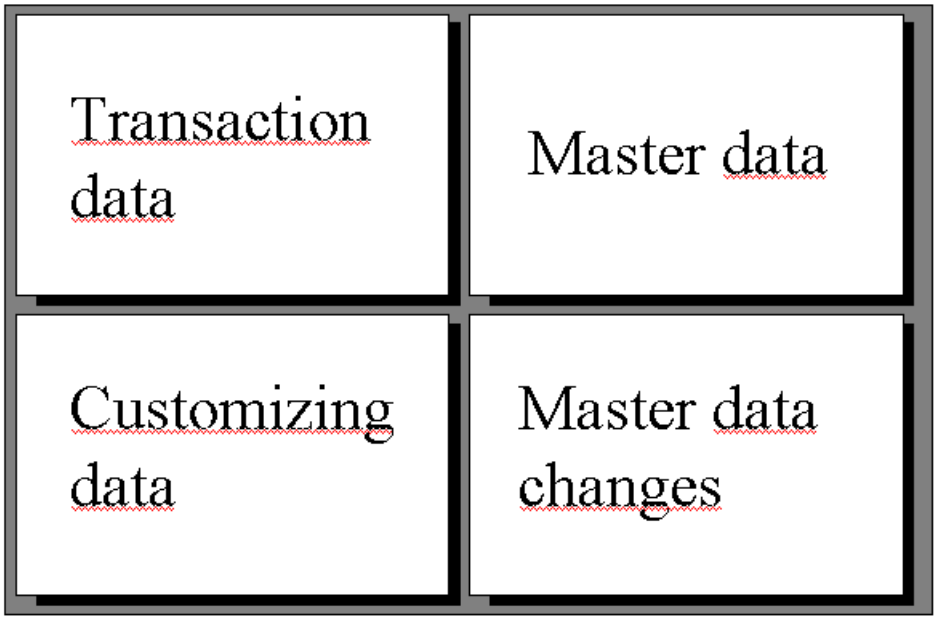
As you can see from this overview the data export is not only possible for primary tax relevant financial accounting data but also for secondary tax relevant data using the PBS archive add ons CSD, CMM, CCO, CCU.

Starting from the posting period and the fiscal year a document info pool is added besides the extract of this primary data via the program /PBS/CFI_LIS_ITEM. You are able to export data from other modules by importing this document info pool. This guarantees that only data of the requested fiscal period will be displayed. This procedure is described in detail in the chapter Z3 data access via PBS export monitor.

If you do not have other PBS archive add ons in use, besides the PBS archive add on CFI, the data from the current database can only be extracted. If archiving was already made for the objects CO_ITEM, SD_VBAK, SD_VBRK, SD_LIKP, MM_EKKO or CHANGES, we cannot guarantee completeness of the data material.

2.15.3 Z3 data access via PBS export monitor (from 4.0)

An export monitor for the comfortable export of primary and secondary tax relevant data was developed that extracts all relevant data for the fiscal period concerned and makes that data available for further processing with a PC analysis program. The monitor is composed of 4 subareas:



One or more extract programs for a data export from the SAP system exist for each subarea. The export monitor's task is to start the extract programs automatically in the correct sequence in order to display dependencies between data from various different applications correctly.

This is absolutely essential for exporting transaction data from different applications. A **document info pool** is used in this case. Starting from the export of accounting data, an additional document info pool is implemented, allowing access to the document information of other applications from the reference in the document header of the accounting document. The document info pool is stored in the cluster table /PBS/CFI_POOL_DC and released by the export monitor at the end of processing. You can find a graphical display of the cross-application dependencies at the end of this chapter.

The functionality can only be used consequently if the PBS archive add ons CFI, CSD, CCO, CMM and CCU have been completely integrated in the customer's archiving strategy.

In the following the individual subareas of the export monitor are explained.

Navigation

You can execute the export monitor via the PBS menu via *Financial accounting → PBS archive add on CFI → Export monitor*.

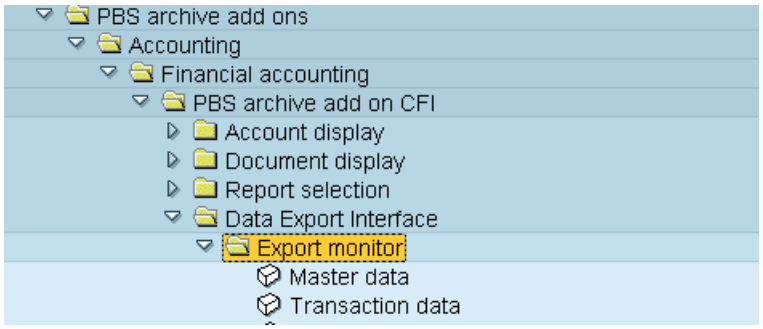


Diagram 34: CFI menu export monitor

In releases lower than 4.6 the function is integrated in the menu item 'Reporting'.

Export monitor in general

Defining of delimitations and list variants should be made in dialog. The programs should be run in the background. A log will be created for each file in the spool file. That log displays the number of items written in each file and the file names.

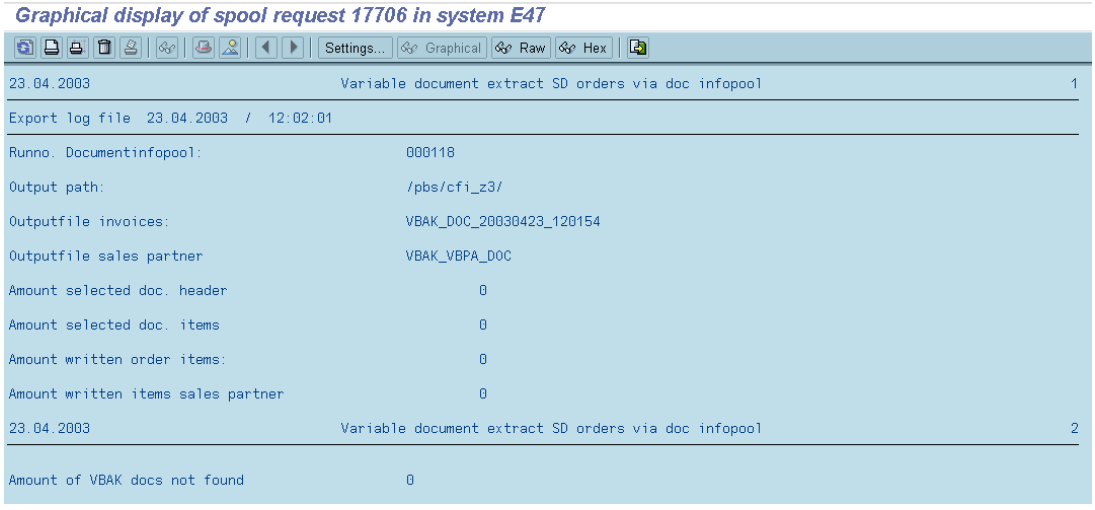

Graphical display of spool request 17706 in system E47
Settings...
Graphical
Raw
Hex
23.04.2003 Variable document extract SD orders via doc infopool 1
Export log file 23.04.2003 / 12:02:01
Runno. Documentinfopool: 000118
Output path: /pbs/cfi_z3/
Outputfile invoices: VBAK_DOC_20030423_120154
Outputfile sales partner VBAK_VBPA_DOC
Amount selected doc. header 0
Amount selected doc. items 0
Amount written order items: 0
Amount written items sales partner 0
23.04.2003 Variable document extract SD orders via doc infopool 2
Amount of VBAK docs not found 0

Diagram 35: Export log export monitor

Important!

In this step the logs have to be kept manually. There is no automatic backup in a database table or file.

Export monitor transaction data

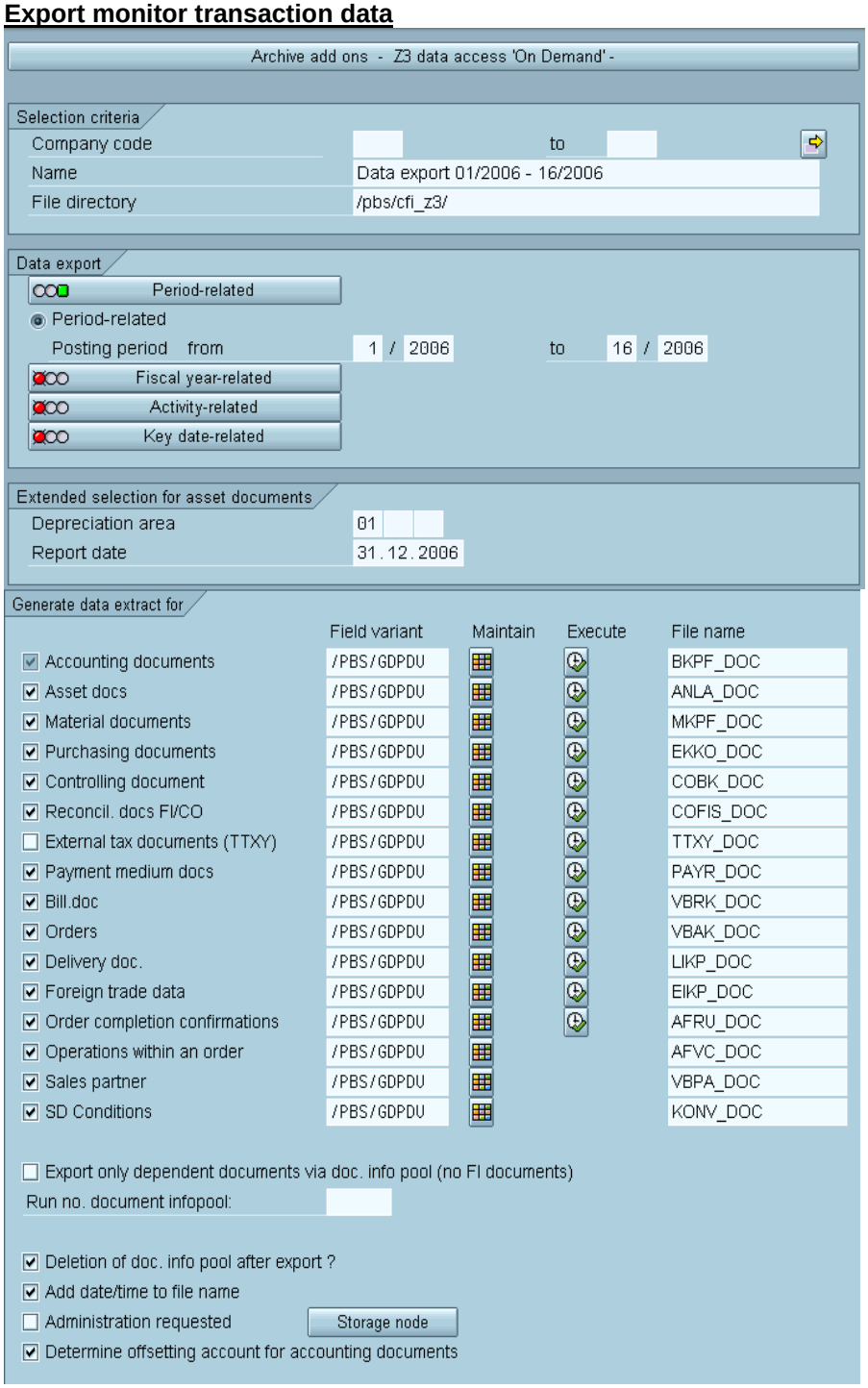
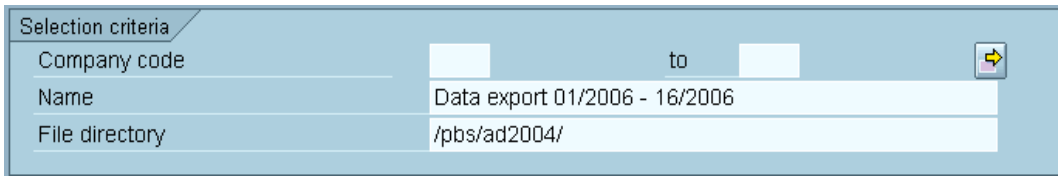


Diagram 36: Export monitor transaction data

The export monitor for transaction data provides numerous possibilities to influence the scope of data to be exported. In the following the possible delimitations are described.



A delimitation via **company code** or an interval can be made. The description should refer to the document info pool to be created and which can be maintained for further use. Indicate a corresponding description. The delimitation **file directory** determines the data's storage path for all subsequent data export files.

Recommendation: Data export according to company codes

The data export monitor cannot be started in parallel for technical reasons but has to be started sequentially. However, this only refers to the creation of the document info pool. If the data export is to be executed for several company codes, for example, you should first create the document info pool for each company code and export the accounting data.

Please ensure that the document info pool is retained. The checkbox 'Deletion of doc. infopool after export?' must be deactivated. In addition, the financial accounting data for each company code should be exported to a separate file directory. In order to be able to recognize the assignment to a particular company code from the file name, a prefix should be used.

Once the export transactions for the accounting part have been completed, the dependent documents can be exported in parallel.

For this purpose, activate the checkbox 'Export only dependent documents via document info pool' and enter the corresponding 'Run no. document info pool'. Ensure that the export of the dependent data is made to the directory in which the corresponding accounting data is located. We recommend manually adding a prefix to the file name of the export file in order to assign the generated file to the requested company code.

Scope of the data export:

The scope of the data export can be varied easily with regard to the period of examination. You can restrict the data volume by selecting data by a period or by a fiscal year. It is also possible to restrict selection to specific activities or key dates.

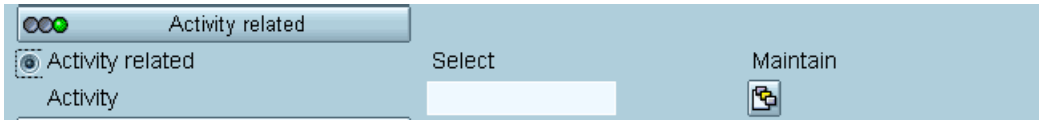
Data export related to period

In **period-related data export**, you select the financial accounting documents according to the posting period.

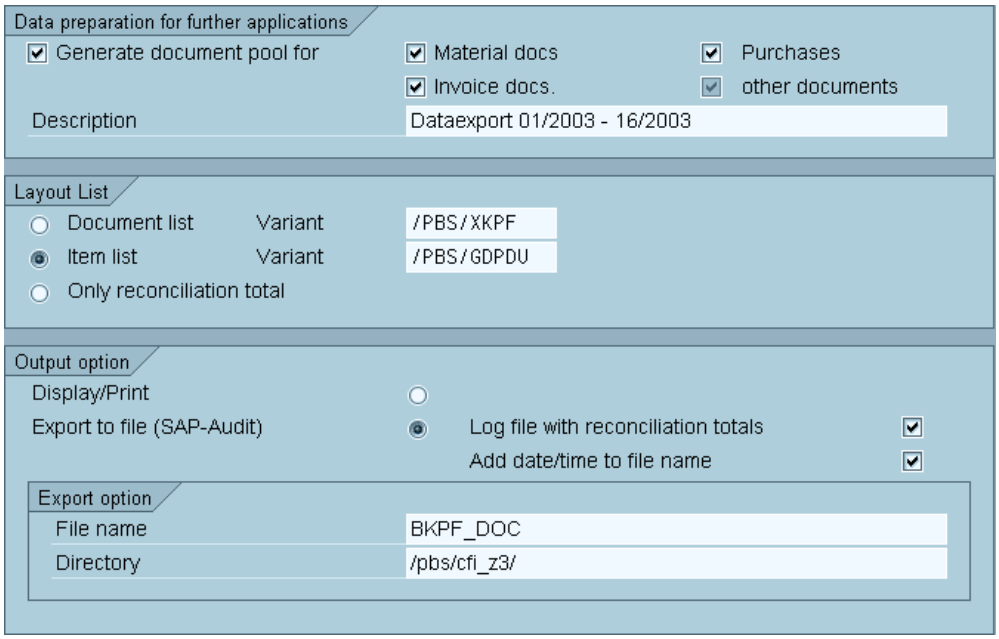
Data export related to fiscal year

A **fiscal year-related data export** takes into account the financial accounting documents which were posted in this fiscal year as well as all documents which were open at the beginning of the selected fiscal year and which were cleared within or after the period of examination.

Data export related to activity



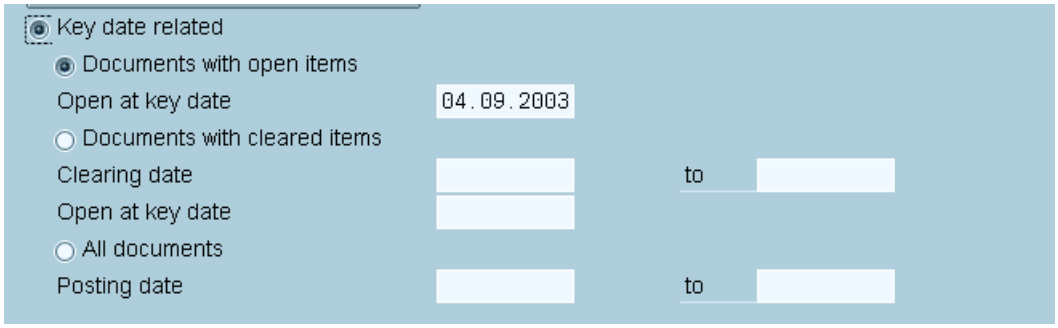
The scope of the accounting data to be exported must be determined in an **activity-related data export**. To do this, branch to the export program for the FI documents by pressing the button **Maintain**. You can restrict the selection scope to a certain amount or a certain document type, for example, using the function **Dynamic selections**. These settings should be stored in a selection variant. Make sure that the path name for the data export, the directory and the description are correct and the parameters are set as displayed in the following example:



In an activity-related data export, only those selections that have been stored in the report variant are valid for the accounting documents.

Make sure that the dynamic selections you have made at item level result in the export of only those items that comply with the selection criteria, not the complete document.
After you have saved the selection variant return to the overview screen of the export monitor and start the activity-related data export by specifying the selection variant.

Data export related to key date



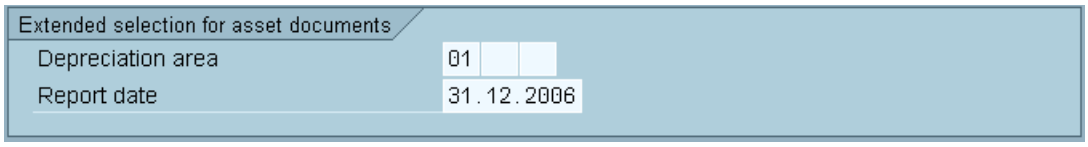
In addition to period-related data selection, time-related data selection is possible.

The selection **'Documents with open items at key date'** selects all documents which contain one or more document items that are still open on the selected date.

If you select **'Documents with cleared items'** for a particular clearing date, all documents which contain one or more items in this clearing period are selected. If you also enter an open item date, the clearing date must be after this date.

If you select '**All documents to posting date'**, data is selected according to the posting period you have entered.

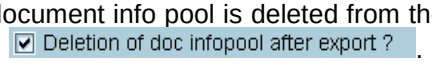
Extended Selections

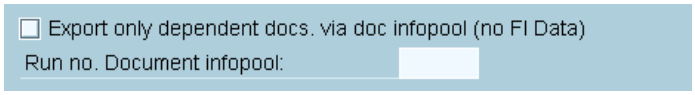


Asset transactions are not selected and exported via the generated document info pool. The data export is executed via the depreciation area or the report date.

You can determine which dependent data for the specified activity or period should be selected by selecting or deselecting the individual document types.

It is essential to export accounting documents as this fills the document info pool. You can define the fields that should appear in the data extract in the SAP ALV (ABAP List Viewer) for each document type. Press the maintenance button in the selection screen of the maintenance monitor to define the fields. Enter the description for the created dataset in the field 'File name'. If the checkbox "Add date/time to file name" is also active, the file name is automatically supplemented with the current date and time.

At the end of processing, the generated document info pool is deleted from the file /PBS/CFI_POOL_CD via the checkbox  . This checkbox should not be activated if the document info pool is to be used again later on.



Dependent document types can be exported at any time. An info pool that has been generated previously is used for this purpose, which can be selected via the input help. In addition, the checkbox 'Export only dependent docs. via doc info pool' should be activated.

All transaction data in the export files is linked via the financial accounting terms company code, document number and fiscal year and can be specifically linked again in the PC analysis program.

Reconciliation of the dataset

Before creating the extract stocks, you should run the program /PBS/CFI_LIS_ITEM separately and execute a reconciliation of the datasets for the requested company codes and fiscal year periods. For this purpose, activate checkbox "only reconciliation total" and deactivate checkbox "Generate document pool for". If there are no differences in the reconciliation log, the dataset is consistent and the global data export can be made.

Export of external tax documents (TTXY)

Due to runtime reasons, external tax documents should only be exported if they are actually active in the system.

Execution of data export in single steps

Data export for all the data does not have to be carried out immediately. If the accounting documents have been exported, a document info pool exists in the database table /PBS/CFI_POOL_DC. This info pool is assigned a run number when the financial accounting data is exported. The dependent data can be exported consecutively by executing the individual programs when this number is specified. Please refer to the overview in Chapter 2.15.2 for the program names. In order to use this procedure, you must deactivate the checkbox 'Deletion of doc info pool after export?' in the export monitor. After all data exports have been terminated, the info pool can be deleted using program /PBS/CFI_LIS_POOL_DELETE.

During the data export with the document info pool the order of the extraction procedure is important for some procedures as the document info pool has to be supplemented with necessary additional information. Thus take into account that

1) Material documents have to be extracted before purchasing documents.

2) Billing documents have to be extracted before orders.

3) Delivery notes have to be extracted after the export of billing documents and orders.

4) Foreign trade data have to be extracted after the export of material documents, purchasing documents, billing documents, orders and delivery notes.

Export monitor master data

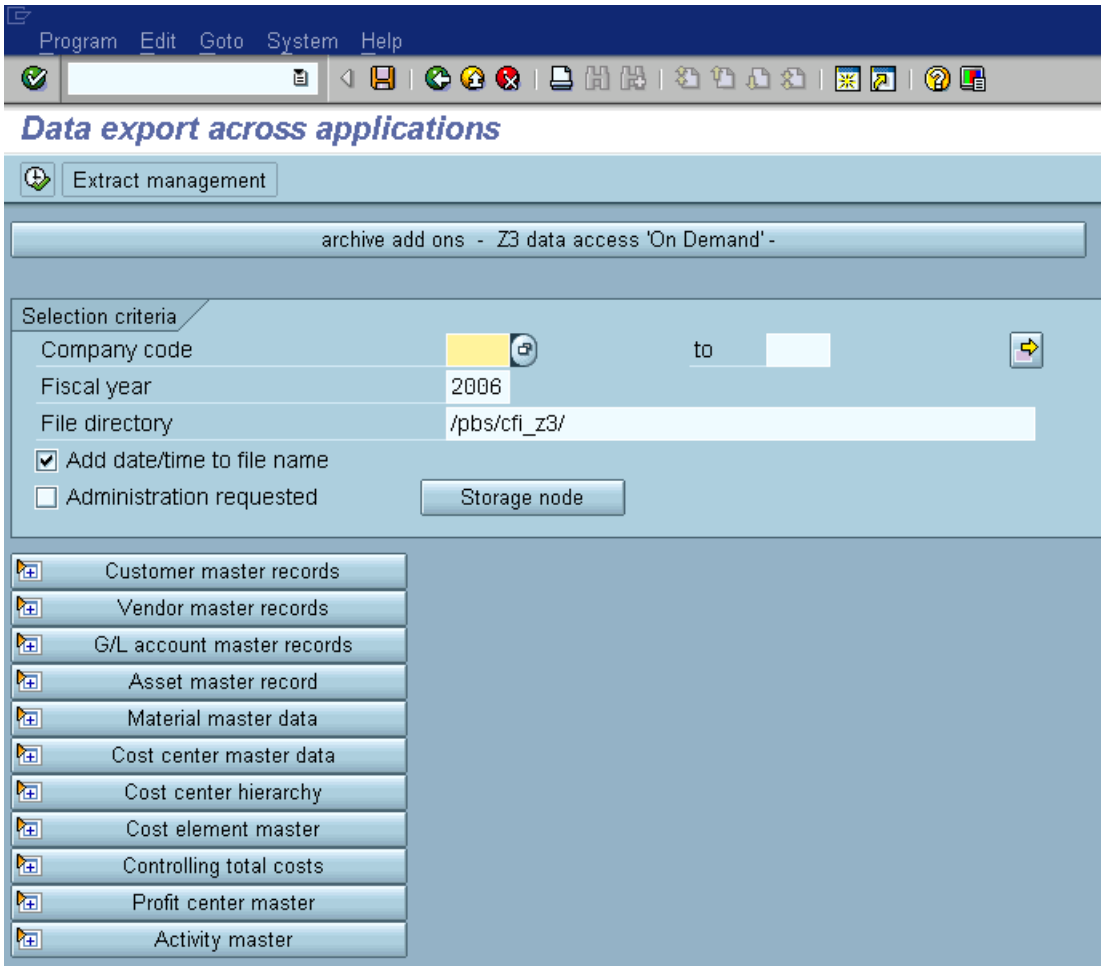


Diagram 37: Export monitor master data

Customer, vendor, G/L account and asset master data is exported. You can limit selection to a company code. You must enter the fiscal year and a file directory. Apart from master data, you can also export transaction figures and special G/L transactions. Other delimitations correspond with the export monitor for transaction data.

Export monitor customizing data

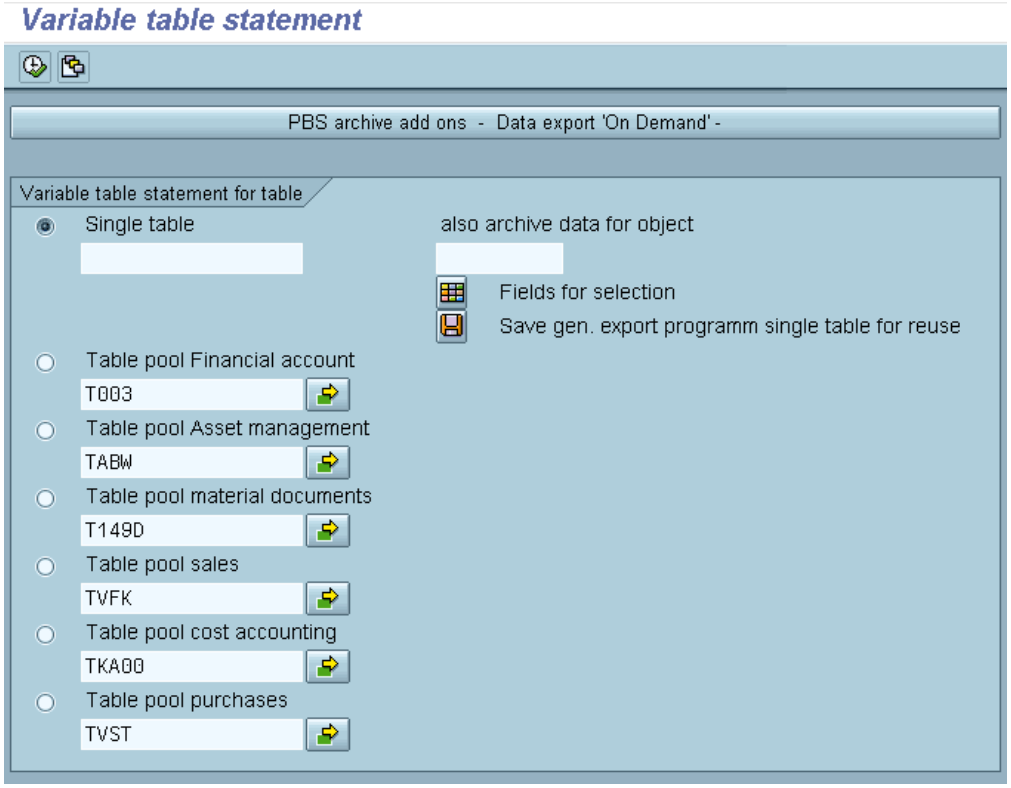


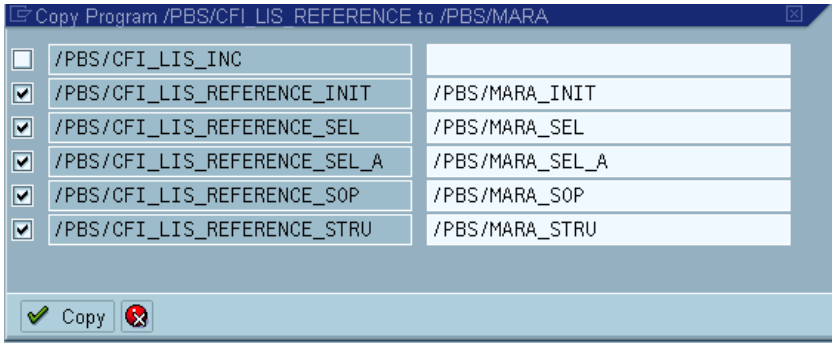
Diagram 38: Export monitor Customizing data

In addition to the option of exporting individual tables, a table pool has been created for financial, asset and material accounting, which corresponds to the recommendations of the German "SAP User Group e.V." (DSAG). A table pool should be exported in the background. The file name is defined automatically and consists of the table name, the date and the time of the export. Language-dependent entries during the export of a table pool are only carried out in the logon language. An export of the customizing tables from sales, cost accounting and purchase order is only possible if the corresponding PBS archive add ons are installed.

Characteristics of Single Table Exports

If you want to export the data from a single table, you can configure the selection options as you wish by pressing the button ‘Fields for selection’. The maximum number of selections is limited to 120. If you enter more than 120 selections, the additional number of selections will be ignored when the export program is generated. It is also possible to select the data for this table from existing SAP archive files by selecting an archiving object for the requested table from the input help. As the data can only be processed sequentially in this case, you may have to reckon with long runtimes. You should therefore run this process in the background.

The dynamically generated program can be transferred to a fixed program via the function ‘Save gen. export program single table for reuse’. This option requires that the user has a valid developer license to create ABAP/4 programs. When you create a program, you must ensure include programs are also copied from the dynamic program '/PBS/CFI_LIS_REFERENCE'.



This is essential for the programs marked in above graphical display. If they are not copied, it is possible that the program would no longer be able to run if other tables are copied subsequently using the function described above.

Export monitor master data changes

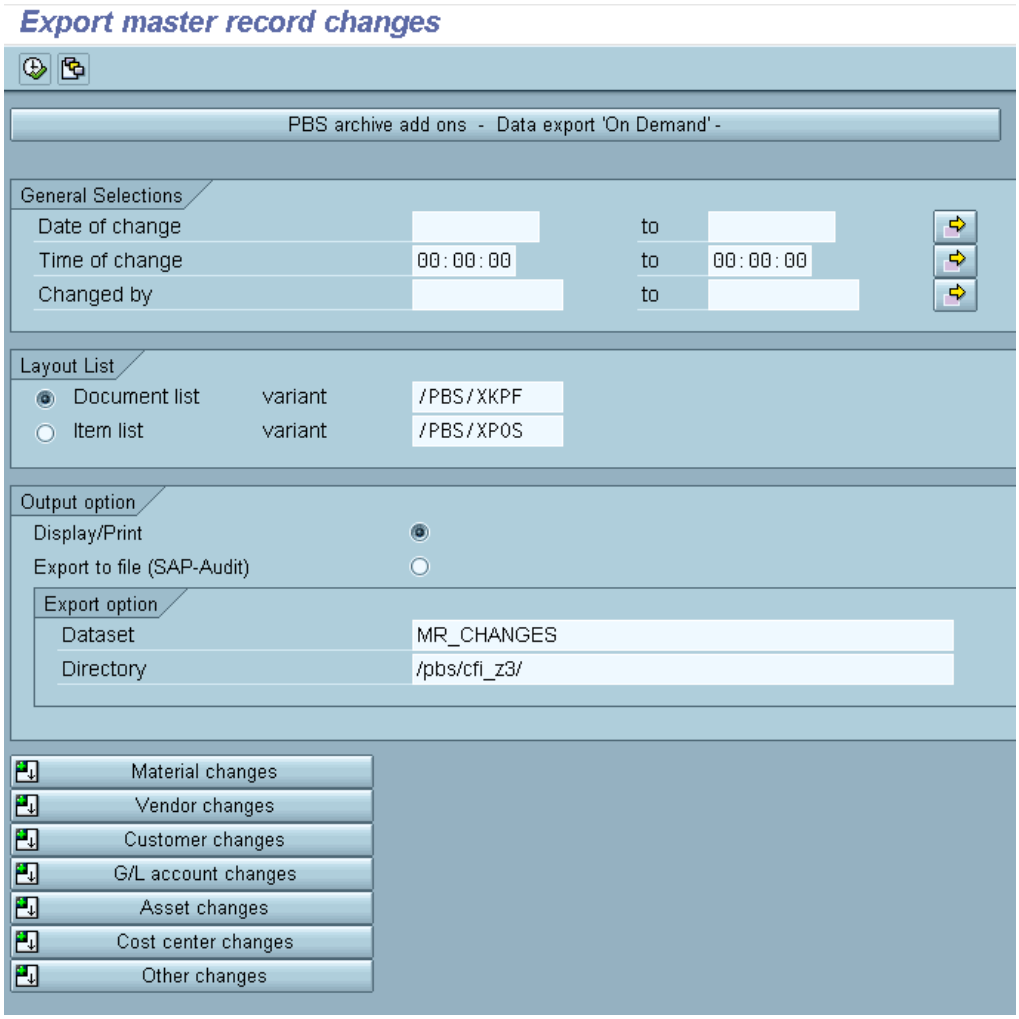
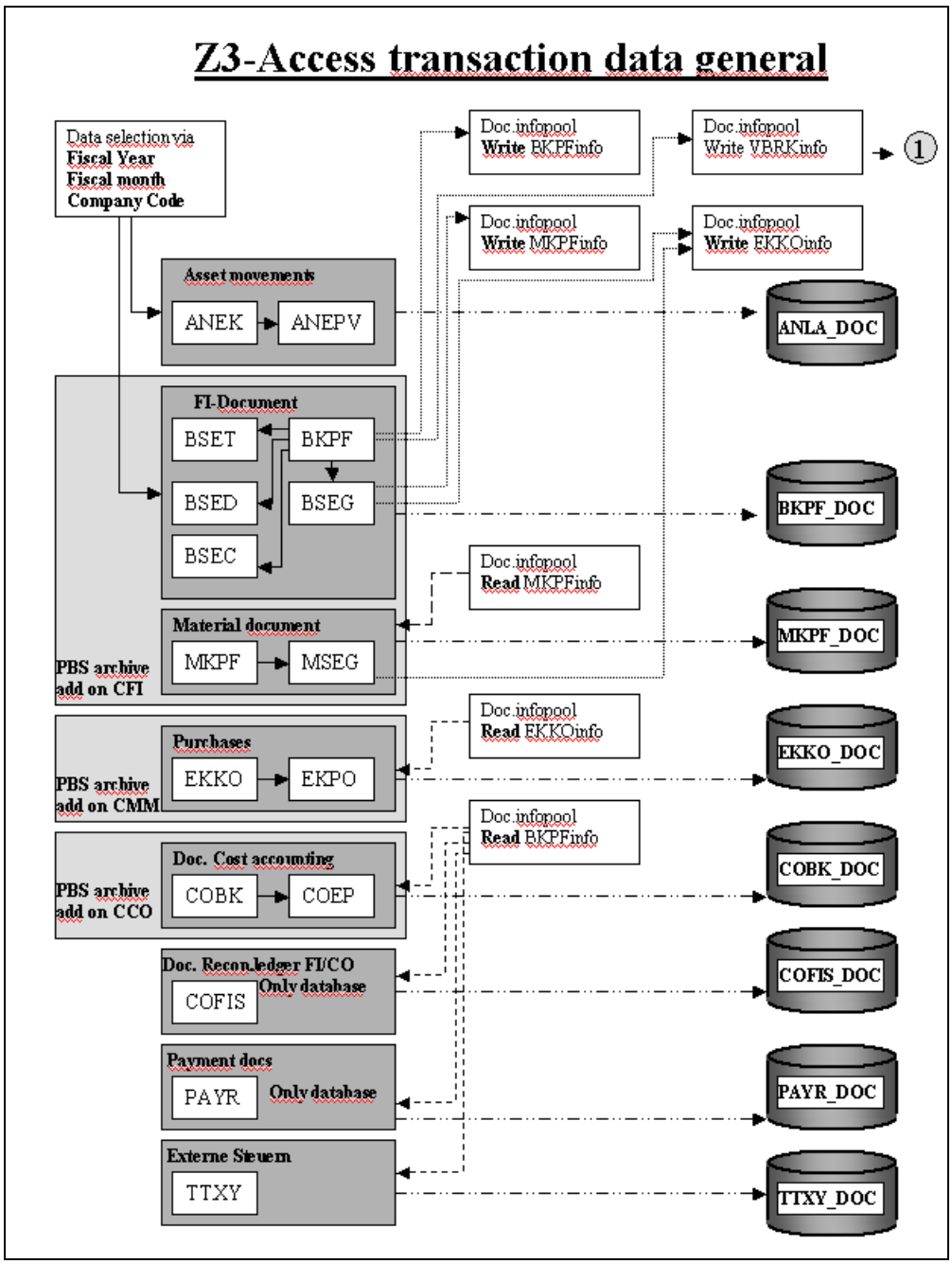


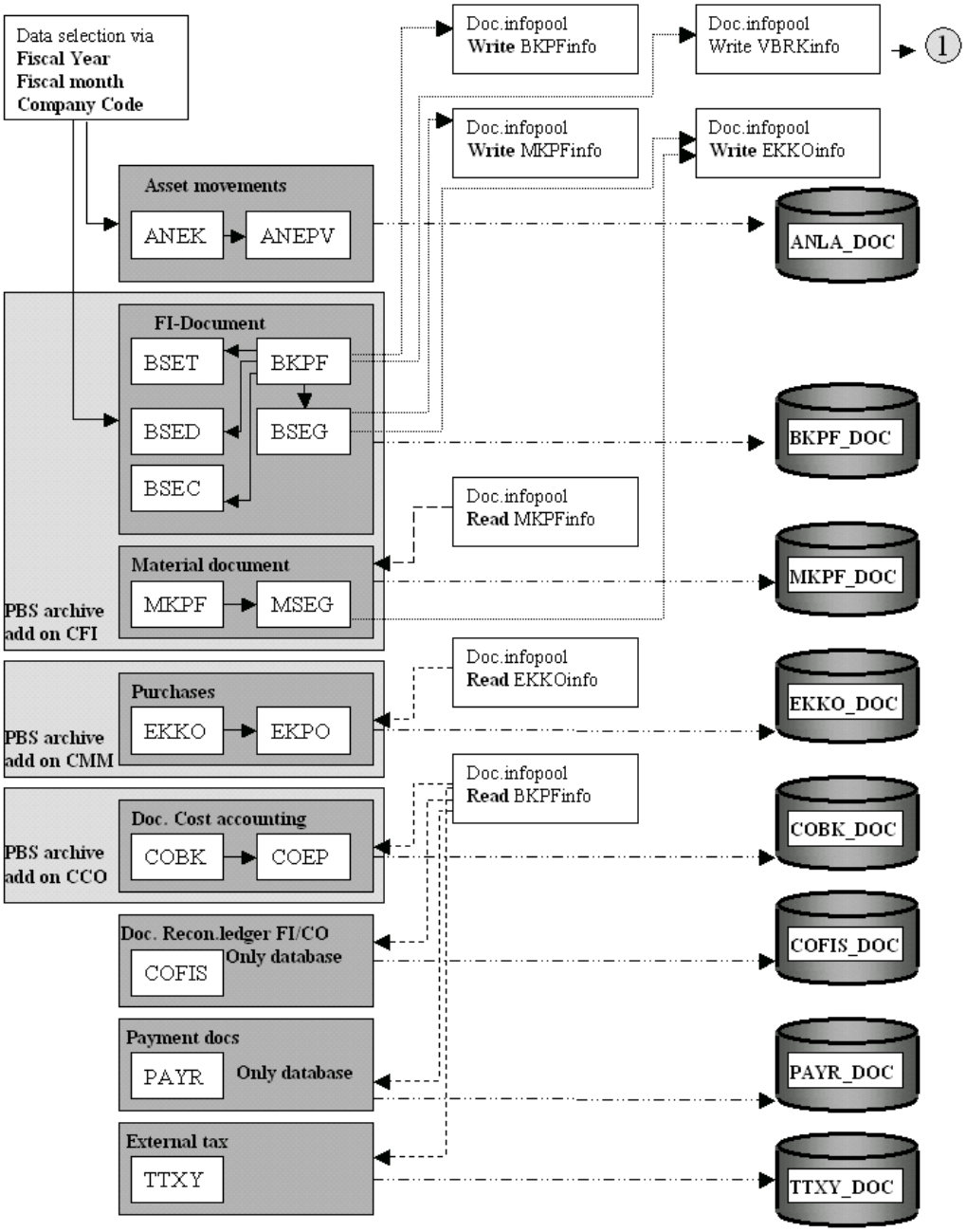
Diagram 39: Export monitor master data changes

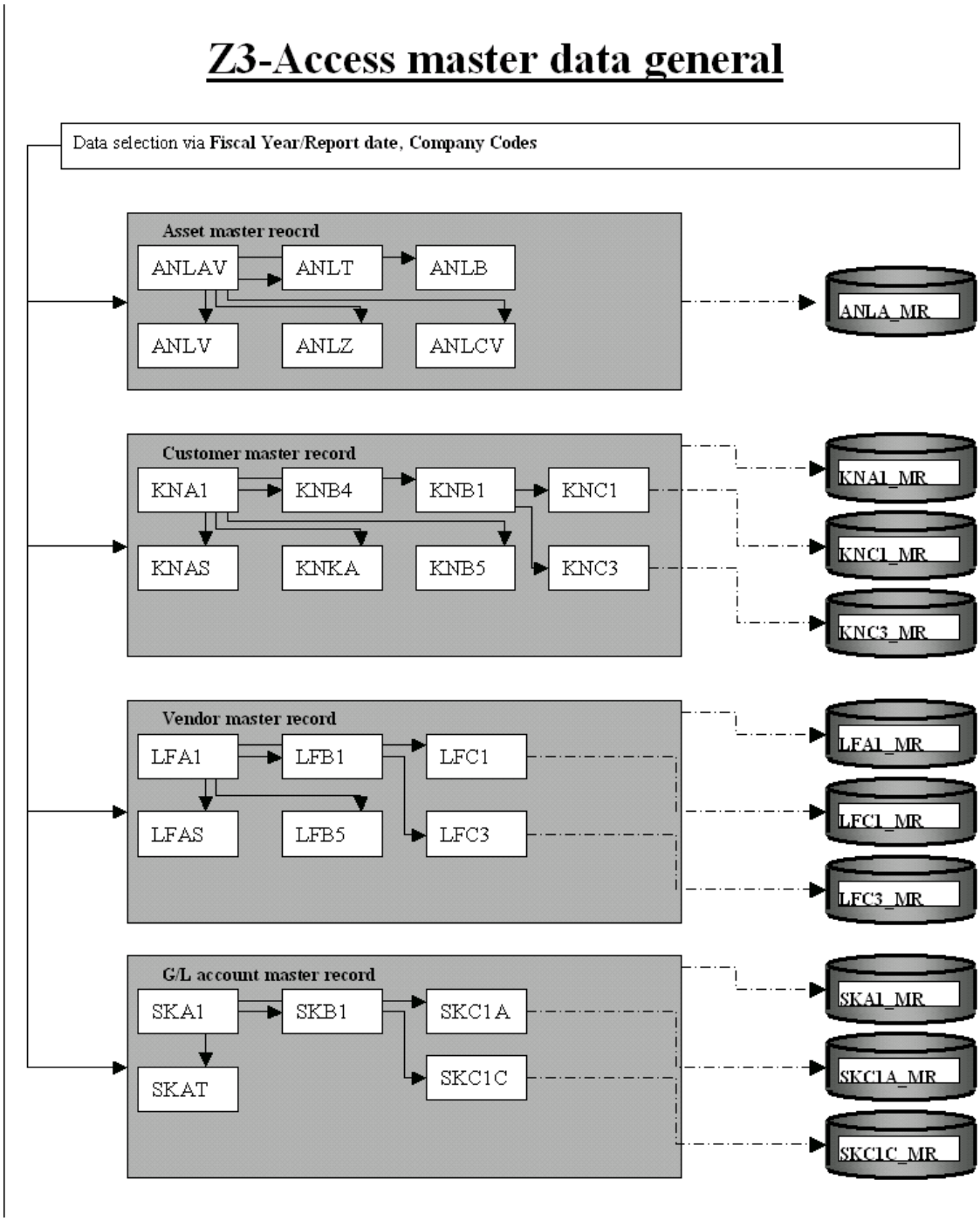
In order to meet the requirements of making old data available 'ON DEMAND', the relevant changes to a master record must also be exported, so that the changes can be documented precisely. This is supported by the export monitor for master data changes for all types of changes in master records.

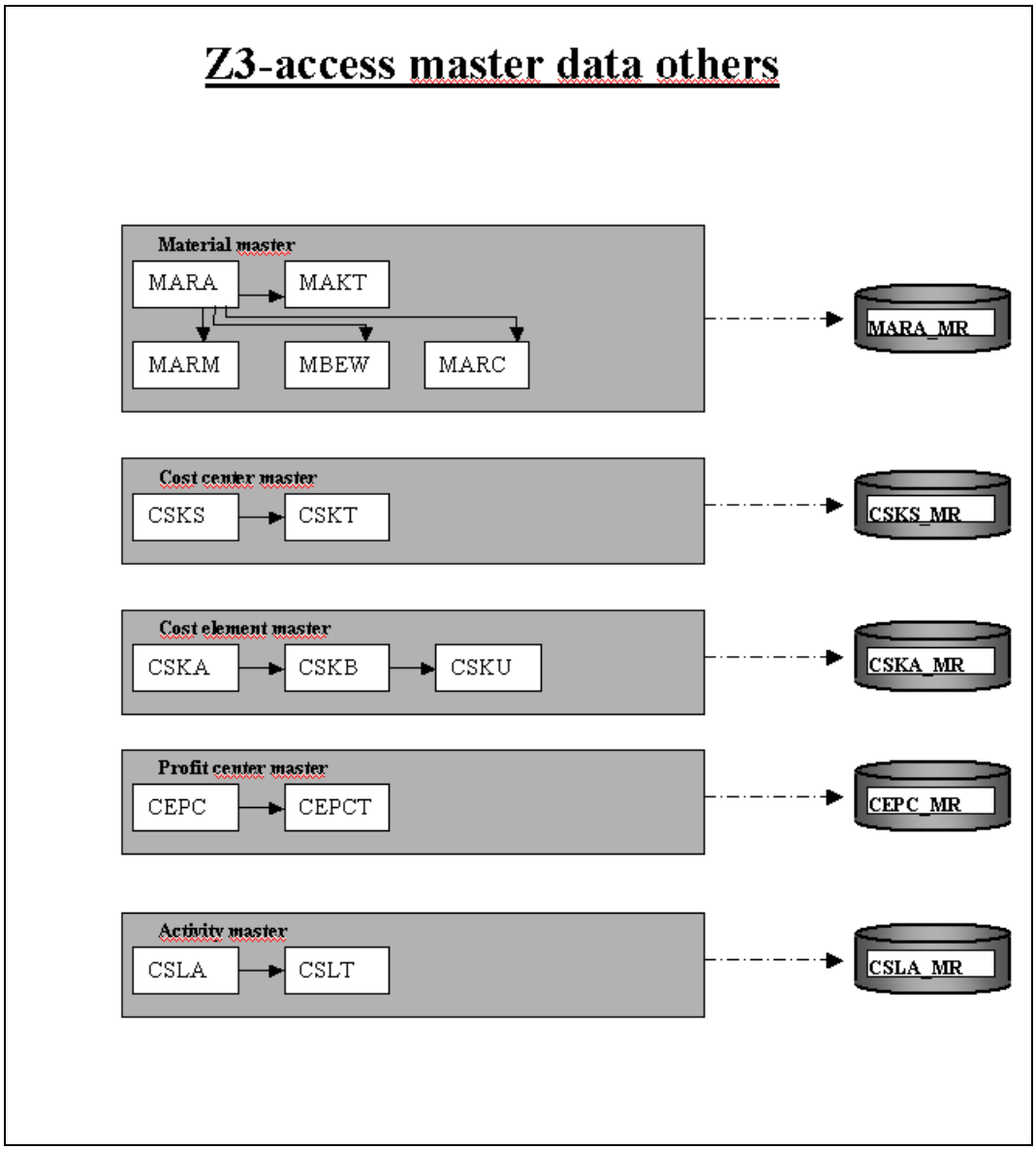
The following graphical display shows the object relations between the individual applications.



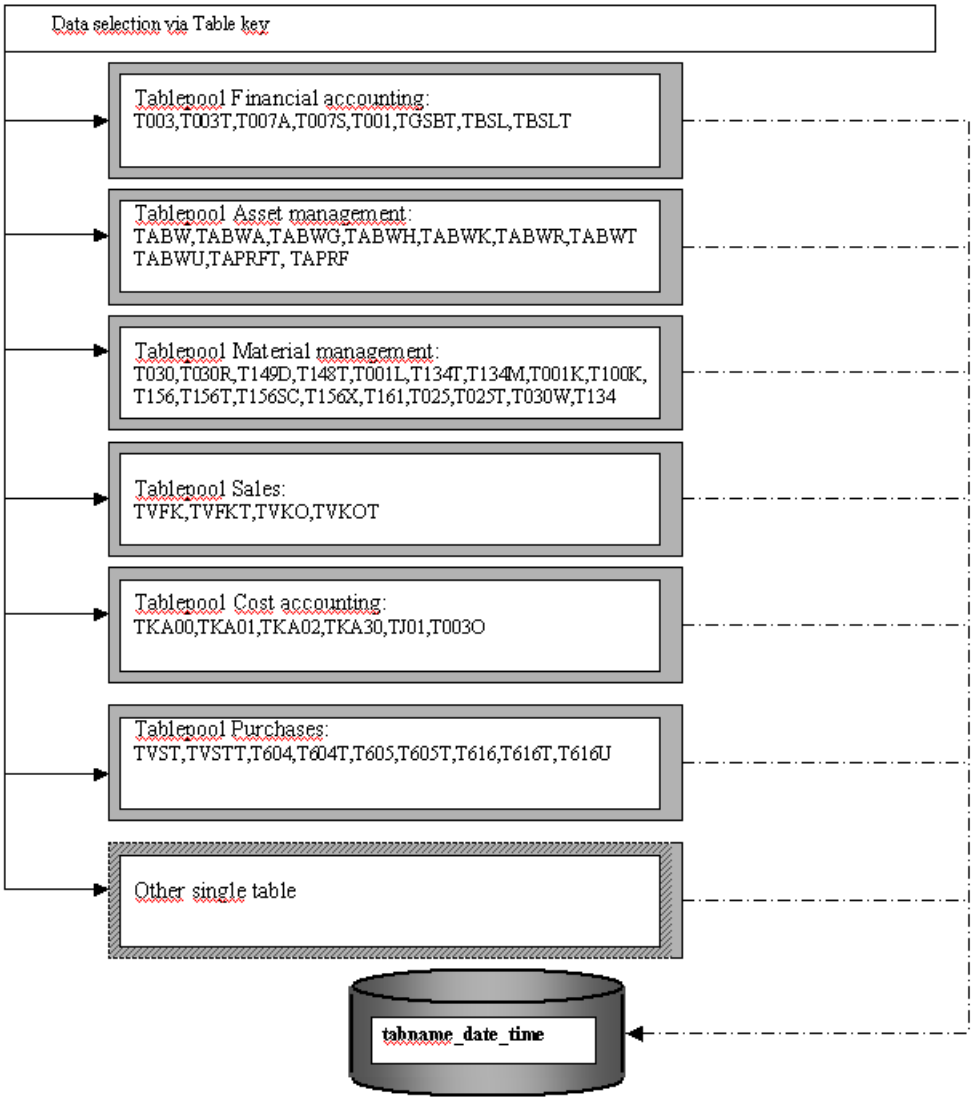
Z3-Access transaction data general



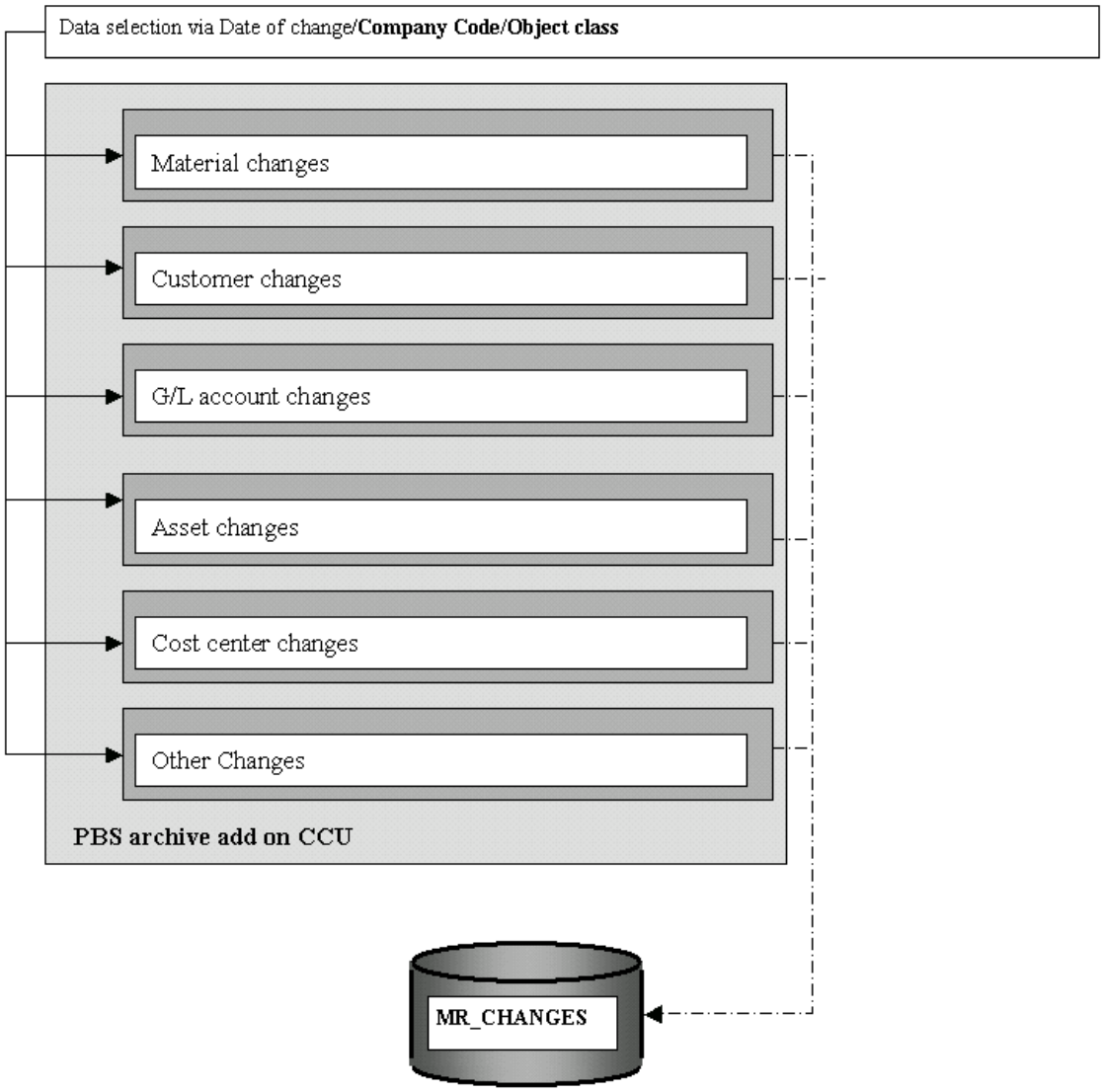

Z3-Access master data general
Data selection via Fiscal Year/Report date, Company Codes
Asset master reocrd
ANLAV
ANLT
ANLB
ANLV
ANLZ
ANLCV
ANLA_MR
Customer master record
KNA1
KNB4
KNB1
KNC1
KNAS
KNKA
KNB5
KNC3
KNA1_MR
KNC1_MR
KNC3_MR
Vendor master record
LFA1
LFB1
LFC1
LFAS
LFB5
LFC3
LFA1_MR
LFC1_MR
LFC3_MR
G/L account master record
SKA1
SKB1
SKC1A
SKAT
SKC1C
SKA1_MR
SKC1A_MR
SKC1C_MR


Z3-access master data others
Material master
MARA
MAKT
MARM
MBEW
MARC
MARA_MR
Cost center master
CSKS
CSKT
CSKS_MR
Cost element master
CSKA
CSKB
CSKU
CSKA_MR
Profit center master
CEPC
CEPCT
CEPC_MR
Activity master
CSLA
CSLT
CSLA_MR

Z3-Access Customizing



Z3-Access Master record changes



In the following the extract files which are generated are described if the PBS export monitor is used completely. The file name is composed of

1. Table name
2. Date
3. Time

File	Description
ANKA_20021025_142755	Asset classes: general data
ANKT_20021025_142756	Asset classes: Description
ANLA_DOC_20021025_134601	Asset Master Record Segment
ANLA_MR_20021025_141418	Asset Master Record Segment
AUFK_20021025_143501	Order master data
BKPF_DOC_20021025_133852	Accounting Document Header
BNKA_20021025_142519	Bank master record
CEPC_MR_20021025_141527	Profit Center Master Data Table
COBK_DOC_20021025_134956	CO Object: Document header
COFIS_DOC_20021025_135058	Actual line items for reconciliation ledger
CSKB_MR_20021025_141519	Cost Elements (Data Dependent on Controlling Area)
CSKS_MR_20021025_141518	Cost Center Master Data
CSLA_MR_20021025_141528	Activity master
EIKP_DOC_20021025_140002	Foreign trade data
EKKO_DOC_20021025_134937	Purchasing Document Header
KNA1_MR_20021025_141325	General Data in Customer Master
KNC1_MR_20021025_141331	Customer master (transaction figures)
KNC3_MR_20021025_141335	Customer master (special G/L transaction figures)
KNKK_20021025_142521	Customer master credit management: Control area da
KNVV_20021025_143313	Customer Master Sales Data
LFA1_MR_20021025_141340	Vendor Master (General Section)
LFBK_20021025_142522	Vendor Master (Bank Details)
LFC1_MR_20021025_141344	Vendor master (transaction figures)
LFC3_MR_20021025_141346	Vendor master (special G/L transaction figures)
LIKP_DOC_20021025_135922	SD Document: Delivery Header Data
LIKP_VBPA_DOC_20021025_13592	SD Document: Delivery Header Data
MAKT_20021025_143144	Material Descriptions
MAPE_20021025_143145	Material Master: Export Control File
MARA_MR_20021025_141426	General Material Data
MKPF_DOC_20021025_134604	Header: Material Document

File	Description
MR_CHANGES	Change document header
PAYR_DOC_20021025_135514	Payment Medium File
PROJ_20021025_143505	Project definition
PRPS_20021025_143506	WBS (Work Breakdown Structure) Element Master Data
SKA1_MR_20021025_141349	G/L Account Master (Chart of Accounts)
SKC1A_MR_20021025_141357	G/L Account Sales Segment Derived from GLDB -Local
SKC1C_MR_20021025_141408	G/L Account C-Segment from GLT0 -Currency Amounts-
T000_20021025_142523	Clients
T001K_20021025_142526	Valuation area
T001K_20021025_143146	Valuation area
T001L_20021025_143147	Storage Locations
T001W_20021025_142527	Plants/Branches
T001_20021025_142524	Company Codes
T003O_20021025_143315	Order Types
T003P_20021025_143317	Order Type Descriptions
T003T_20021025_142530	Document Type Texts
T003_20021025_142529	Document Types
T004T_20021025_142532	Chart of Account Names
T004_20021025_142531	Directory of Charts of Accounts
T005S_20021025_142534	Taxes: Region (Province) Key
T005T_20021025_142535	Country Names
T005U_20021025_142536	Taxes: Region Key: Texts
T005_20021025_142533	Countries
T006A_20021025_143558	Assign Internal to Language-Dependent Unit
T006_20021025_143557	Units of Measurement
T007A_20021025_142537	Tax Keys
T007S_20021025_142538	Tax Code Names
T009_20021025_142540	Fiscal year variants
T012K_20021025_142541	House Bank Accounts
T012_20021025_142540	House Banks
T014T_20021025_142543	Credit control area names
T014_20021025_142542	Credit control areas
T022T_20021025_142545	FI-SL Activities: Text
T022_20021025_142544	FI-SL Activity: Fixed Data
T023T_20021025_143149	Material Group Descriptions
T023_20021025_143148	Mat. groups
T024E_20021025_143600	Purchasing Organizations

File	Description
T024_20021025_143559	Purchasing Groups
T025T_20021025_143151	Valuation Class Descriptions
T030R_20021025_143154	Rules for Determination of Standard Accounts
T030W_20021025_142549	Transaction Key Names
T030_20021025_142547	Standard Accounts Table
T030_20021025_143152	Standard Accounts Table
T037S_20021025_142550	Account Assignment References acc. to Transaction
T042F_20021025_142551	Payment method supplements
T042H_20021025_142552	Text table for additional payment methods
T042Z_20021025_142553	Payment Methods for Automatic Payment
T052U_20021025_142554	Own Explanations for Terms of Payment
T053R_20021025_142555	Classification of Payment Differences
T053S_20021025_142556	Classification of Payment Differences (Texts)
T059A_20021025_142557	Type of Recipient For Vendors
T059B_20021025_142558	Withholding Tax Classes for Vendors: Names
T059M_20021025_142559	Minority Indicators
T059P_20021025_142600	Withholding tax types
T059R_20021025_142601	Recipient Code
T059T_20021025_142602	Texts for Minority Indicators
T059U_20021025_142603	Text Table: Withholding Tax Types
T077K_20021025_142603	Vendor account groups
T077Y_20021025_142604	Account Group Names (Table T077K)
T085S_20021025_142759	Description of individual investment support measu
T085_20021025_142757	Investment support measures
T087T_20021025_142800	Description of Evaluation Groups
T090C_20021025_142802	External depreciation keys
T090L_20021025_142804	Unit-of-production method of depreciation
T090M_20021025_142805	Table for maximum depreciation amounts
T090NAZ_20021025_142807	Depreciation Keys - Method Assignment
T090NA_20021025_142806	Depreciation Keys
T090ND_20021025_142809	Declining-Balance Method
T090NH_20021025_142810	Maximum Amount Method
T090NP_20021025_142811	Period Control Method
T090NR_20021025_142812	Base Method
T090NSG_20021025_142814	Multi-Level Method - Start of Validity
T090NS_20021025_142813	Multilevel Method
T090P_20021025_142815	Dep. calc. key percentage records
T090S_20021025_142817	Names For Internal Calculation Keys

File	Description
T090T_20021025_142818	Names For External Depreciation Keys
T090Z_20021025_142820	Period control for transactions
T090_20021025_142801	Depreciation calculation keys
T091P_20021025_142821	Cut-off val. percent. rates
T091T_20021025_142822	Names for Cut-Off Value Keys
T092T_20021025_142824	Description of the Property Classification Key
T092_20021025_142823	Property classification key
T093B_RSL_20021025_142826	Company code-related depreciation area specificati
T093T_20021025_142827	Names for real and derived depreciation areas
T093_20021025_142825	Real and derived depreciation areas
T097T_20021025_142828	Description of the Property Indicator
T134M_20021025_143157	Control of Qty/Value Update
T134T_20021025_143158	Material Type Descriptions
T134_20021025_143156	Material Types
T148T_20021025_143200	Special Stock Descriptions
T148_20021025_143159	Special Stock Indicator
T149C_20021025_142605	Global Valuation Categories
T149D_20021025_143201	Global Valuation Types
T149T_20021025_142606	Global Valuation Category Descriptions
T156SC_20021025_143203	Mvt Type: Qty/Value Posting: Customer Table; as of
T156T_20021025_143205	Movement Type Text
T156X_20021025_143206	Trans./Event Key Modification
T156_20021025_143202	Movement Type
T157E_20021025_143208	Text Table: Reason for Movement
T158V_20021025_143209	Inv. Mngmt - General: Transaction/Event Types Allo
T158W_20021025_143210	Long Text for Transaction/Event Type
T161T_20021025_143601	Texts for Purchasing Document Types
T161_20021025_143211	Purchasing Document Types
T163I_20021025_143603	Texts for Account Assignment Categories
T163Y_20021025_143604	Texts for Item Categories
T163_20021025_143602	Item Categories in Purchasing Document
T179T_20021025_142608	Materials: Product hierarchies: Texts
T179_20021025_142607	Materials: Product Hierarchies
T604C_20021025_143319	Preference: Preference Procedure Code
T604T_20021025_143607	Foreign Trade: Commodity Code/Import Code No. Desc
T604_20021025_143318	Foreign Trade: Commodity Code / Import Code Number

File	Description
T605T_20021025_143608	Foreign Trade: Business Transaction Type - Descrip
T605_20021025_143320	Foreign Trade: Business Transaction Type
T605_20021025_143608	Foreign Trade: Business Transaction Type
T609A_20021025_143321	Foreign Trade: Declarations to Authorities - Exclu
T610O_20021025_143322	Foreign Trade: Authorities
T612B_20021025_143323	FT/Customs: Electr. Procedure: Type of means of tr
T615_20021025_143324	Foreign Trade: Customs Offices
T616T_20021025_143611	Foreign Trade: Procedures - Descriptions
T616U_20021025_143326	Foreign Trade: Import/Export Procedure Conversion
T616U_20021025_143612	Foreign Trade: Import/Export Procedure Conversion
T616_20021025_143325	Foreign Trade: Procedure
T616_20021025_143610	Foreign Trade: Procedure
T618_20021025_143327	Foreign Trade: Modes of Transport
T681A_20021025_143329	Conditions: Applications
T681B_20021025_143330	Conditions: Applications: Texts
T681V_20021025_143331	Conditions: Usages
T683_20021025_143332	Pricing procedures
T685T_20021025_143334	Conditions: Types: Texts
T685_20021025_143333	Conditions: Types
T691A_20021025_142609	Credit management risk categories
T691T_20021025_142610	Credit management risk classes text
T821S_20021025_143508	Distribution keys
T856T_20021025_142612	Transaction type texts
T856_20021025_142611	Transaction Types
T880_20021025_142613	Global Company Data (for KONS Ledger)
T8J6A_20021025_142614	JIB/JIBE Class
T8J6B_20021025_142615	JIB/JIBE Class Text
T8J6C_20021025_142616	JIB/JIBE Subclass
T8J6D_20021025_142617	JIB/JIBE Subclass Text
T8JET_20021025_142618	Equity Type Description
T8JFT_20021025_142620	Equity group description
T8JF_20021025_142619	Equity group
T8JJT_20021025_142621	Recovery Indicator Description
T8JJ_20021025_142620	Recovery Indicator
T8JVT_20021025_142623	Joint Venture Description
T8JV_20021025_142622	Joint venture

File	Description
TABWA_20021025_142830	Transaction types/dep. areas
TABWG_20021025_142832	Transaction type groups
TABWH_20021025_142833	Name for asset transaction type groups
TABWK_20021025_142834	Trans. types for posting prop. values and deprecia
TABWR_20021025_142835	Name of asset hist. sheet group
TABWT_20021025_142836	Asset transaction types texts
TABWU_20021025_142837	Special Treatment of Retirements
TABW_20021025_142829	Asset transaction types
TAPRFT_20021025_142839	Text tab. for investment profile
TAPRF_20021025_142838	Cap. inv. measure profile for AuC and dep. simulat
TBP1C_20021025_143510	Budget/Plan Profile
TBP1T_20021025_143511	Budget / Plan Profile Texts
TBSLT_20021025_142625	Posting Key Names
TBSL_20021025_142624	Posting keys
TCJ1T_20021025_143512	"Project Types"
TCJ41_20021025_143513	Default Values for Work Breakdown Struc- ture
TCJ4T_20021025_143515	Supplies Texts for Project Profiles
TCURC_20021025_142626	Currency Codes
TCURT_20021025_142627	Currency Code Names
TFKBT_20021025_142628	Name of the functional areas
TGSBT_20021025_142629	Business Area Names
TINCT_20021025_142631	Customers: Incoterms: Texts
TINC_20021025_142630	Customers: Incoterms
TJ01_20021025_142632	Business Transactions
TKA00_20021025_143516	Control parameters for controlling areas
TKA01_20021025_143517	Controlling Areas
TKA02_20021025_143519	Controlling area assignment
TKA05_20021025_143519	Cost Center Types
TKA09_20021025_143521	Basic Settings for Versions
TKA10_20021025_143522	Master Data Table, Price Indicators
TKA12_20021025_143522	Switching Structure for Cost Component Splitting
TKA30_20021025_143524	Automatic account assignment
TKB1A_20021025_143525	Settlement Profile
TKB1B_20021025_143526	Text Table for Settlement Keys
TKB5A_20021025_143527	Allocation structure
TKB5B_20021025_143528	Text Table for allocation Structure
TKKAA_20021025_143529	Check Table for Results Analysis Key of RA for Ord

File	Description
TKKAD_20021025_143530	Text Table for Results Analysis Keys of Order Resu
TKKAK_20021025_142840	Calculate Capitalization Value of Capital Investme
TKKAP_20021025_143531	Results Analysis Versions for Results Analysis
TKKAT_20021025_143532	Text Table for Results Analysis Versions
TKT05_20021025_143533	Cost center type texts
TPART_20021025_143337	Business Partner Functions: Texts
TPAR_20021025_143336	Business Partner: Functions
TPI01T_20021025_142634	Interest Calculation Profile
TPI01_20021025_142633	Interest Calculation Profile
TSKMT_20021025_143213	Taxes: Materials: Texts
TSKM_20021025_143212	Material Taxes
TSTCT_20021025_142635	Transaction Code Texts
TTXJT_20021025_142640	Text Table for Tax Jurisdiction
TTXJ_20021025_142640	Check Table for Tax Jurisdiction
TTXY_DOC_20021025_135059	External tax interface: tax information
TVAKT_20021025_143340	Sales Document Types: Texts
TVAK_20021025_143338	Sales Document Types
TVAPT_20021025_143343	Sales document item categories: Texts
TVAP_20021025_143341	Sales Document: Item Categories
TVAUT_20021025_143344	Sales Documents: Order Reasons: Texts
TVAU_20021025_143344	Sales Documents: Order Reasons
TVEGRT_20021025_143346	Material Group: Packaging Materials: Designations
TVEGR_20021025_143345	Material Group: Packaging Materials
TVFKT_20021025_143348	Billing: Document Types: Texts
TVFK_20021025_143347	Billing: Document Types
TVFMT_20021025_143216	Foreign Trade: Mat. Pricing Groups in Export - Des
TVFM_20021025_143215	Foreign Trade: Material Pricing Groups in Export
TVKOT_20021025_143351	Organizational Unit: Sales Organizations: Texts
TVKO_20021025_143350	Organizational Unit: Sales Organizations
TVOID_20021025_142641	Check void reason codes
TVOIT_20021025_142642	Check void reason code texts
TVPAT_20021025_143353	Business partners: Control in sales docu-ments
TVPA_20021025_143352	Partner: Partner Types (Entities)

File	Description
TVSTT_20021025_143614	Organizational Unit: Shipping Points: Texts
TVST_20021025_143613	Organizational Unit: Shipping Points
TVTW_20021025_143354	Organizational Unit: Distribution Chan-nels
TW07_20021025_142643	SCB group
TW08_20021025_142644	Fin.acctng group
TW11_20021025_142645	Balance sheet indicator
TW50_20021025_142646	Table for possible deposit types
TWD01_20021025_142647	Treasury: Securities Account Master Data
TZBA_20021025_142648	Holding
VBAK_DOC_20021025_135903	Sales Document: Header Data
VBAK_VBPA_DOC_20021025_13590	Sales Document: Partner
VBRK_DOC_20021025_135540	Billing: Header Data
VBRK_KONV_DOC_20021025_13554	Conditions (Transaction Data)
VBRK_VBPA_DOC_20021025_13554	Sales Document: Partner
VWPANLA_20021025_142649	Asset master for securities
VWPDEPO_20021025_142651	Sec.acct position

2.15.4 Z3 data access – Solution of special problems

Open items at key date

Apart from the classical document data export it is also possible to extract open/cleared item data for customers, vendors and G/L accounts at a particular key date. You can call up the program from the CFI menu → Report → Reporting → Data export → Document data → Financial accounting → Open/Cleared items.

Asset history sheet (from SAP Release 4.6)

With the program /PBS/CFI_LIS_GITT it is possible to export the asset history sheet analogue to the SAP standard report RAGITT_ALV01. The program call can be carried out via the CFI menu → Data Export Interface → Export monitor → Special extract reporting → Others → Asset history sheet.

Balance Sheet (from SAP Release 4.6)

With the program /PBS/CFI_LIS_ BILA00 it is possible to export the data of the balance sheet data analogue to the SAP standard report RFBILA00. The program can be called up via the CFI menu → Data Export Interface → Export monitor → Special extract reporting → Financial Accounting→ Balance Sheet/P+L statement.

Customizing Changes (from SAP Enterprise Release)

Customizing changes for evaluation purposes can be exported outside of the SAP System in transaction PBS/SCU3. For this purpose, the changes in Customizing must also be logged in the SAP System. Please see the SAP standard documentation for details. The tables critical from the customer's perspective whose changes are to be exported for documentation purposes can be stored in transaction /PBS/SCU3, via the menu item Administration → Maintain Customizing tables Z3 access. The program call can be carried out via the CFI menu → Data Export Interface → Export monitor → Special extract reporting → Others → Customizing Changes.

Reconciliation of index data with transaction figures including data export

If you want to reconcile index data (Tables BSID, BSIK, BSIS) for customers, vendors and G/L accounts before the data export, you can also use the above-mentioned reports. In these reports, it is important to enter the fiscal year and to activate the checkbox 'Reconciliation indices/transaction figures' as well as to enter the posting period.

A reconciliation is made between index data and transaction figures based on the company code currencies for the desired period.

Export of changes for FI document

If an export of document changes for accounting documents is requested, this can be made via the CFI menu → Report → Reporting → Data export → Document data → Financial accounting → Changes FI documents.

Export of withholding tax information

If an export of document changes for withholding tax information is requested, this can be made for customers and vendors via the CFI menu → Report → Reporting → Data export → Document data → Financial accounting → Open/Cleared items.

Export of Material Stock Values for Posting Date (from SAP Release 4.6C)

The material stock data for a specific posting date period can be exported in transaction /PBS/CFI_FR56. The quantity-based and value-based stocks at the start and end of the selected period, including the inflow and outflow per material, are taken into consideration. In combination with the individual material movements of transaction /PBS/CFI_FR49 (/PBS/CFI_LIS_ITEM_MATERIAL) the extracts can be used to support the evaluation of material and inventory stocks by third parties (auditors). The program can be called via the CFI Menu → Data Export Interface → Export Monitor → Special extract reporting → Others → Material stock per posting date.

Extended field selection during the export of G/L account line items (transaction /PBS/CFI_FR29) from release 4.6

The extract of G/L account line items can be specifically supplemented by individual fields. The extended G/L account index can be used for items from the PBS archive in order to make these fields available. For documents from the database the respective fields must be selected subsequently.

The following fields can be extracted additionally:

```
*   Document header fields
    CPUDT LIKE BKPF-CPUDT,     " Entry date
    BKTXT LIKE BKPF-BKTXT,     " Document header text
    DOKID LIKE BKPF-DOKID,     " Document name
    ARCID LIKE BKPF-ARCID,     " Extract ID
    USNAM LIKE BKPF-USNAM,     " User
*   Item fields
    KOART LIKE BSEG-KOART,     " Account type
```

```
XAUTO LIKE BSEG-XAUTO,     " Item automatically
XKRES LIKE BSEG-XKRES,     " Line item display
XHRES LIKE BSEG-XHRES,     " General ledger account resident
UMSKS LIKE BSEG-UMSKS,     " Target sales type
UMSKZ LIKE BSEG-UMSKZ,     " Sales indicator
PERNR LIKE BSEG-PERNR,     " Personnel number
ABPER LIKE BSEG-ABPER,     " Payroll period
MATNR LIKE BSEG-MATNR,     " Material number
EBELN LIKE BSEG-EBELN,     " Purchase order number
EBELP LIKE BSEG-EBELP,     " Purchase order item
```

The checkbox ’Extended field selection’ must be activated in the selection screen of the program, so that the additional fields can be selected. Existing field selection variants can be supplemented by the fields listed above.

Export of Data of the advance return for tax on sales / purchases (from SAP Enterprise Release)

You can export tax data from the SAP System in the same way as the advance return for tax on sales/purchases using the program /PBS/CFI_LIS_ITEM (transaction /PBS/CFI_FR49 → button 'Execute' in the line ’Accounting documents’). The following requirements are necessary:

The system variant CUS&PBS_TAX must be used as the basis for your own selection variants. This variant contains the basic settings for exporting tax data. The variant can be supplemented by further selections and can be stored under a customer-specific variant name.

The following selections must always be active:

- Dynamic selections →LC tax basis <> 0 (document segment tax data)
- Determination of the offsetting account desired

'/PBS/TAX' is recommended as a basis list variant. This contains the following fields for the data export:

1. Company code
2. Document number
3. Fiscal year
4. Item
5. Posting period
6. Posting date
7. Reference document number

8. Account
9. Short text for account
10. Posting key
11. Debit/credit indicator
12. Tax indicator
13. Tax percentage
14. Description of tax rate
15. Transaction key
16. Local currency
17. LC tax basis
18. LC tax amount
19. Non-deductible tax in LC
20. Deductible tax in LC
21. Net amount
22. Gross amount
23. Offsetting account type
24. Offsetting account entry
25. Offsetting account description
26. G/L account of the offsetting account
27. Description of the G/L offsetting account

If you want to supplement the list with additional fields, we recommend that you select a small number of documents in order to adapt the list variant. If possible, the name of the list variant should be within the customer namespace. To maintain the variant, select the output option Display/Print before executing the program.

If the data is actually to be exported, activate the checkbox ‘Export to file’ and enter a file directory as well as a file name. Once you have saved the selection variant, you can start the program in the background.

If the data is to be exported via the export monitor activate the checkbox ‘Transaction-based' and enter the selection variant you created previously. You can decide which dependent data is to be exported.

Restricting the Scope of Selection

If you want to select accounting documents only for certain conditions (such as cost center, order, plant, business area etc.) you can restrict selection in the selection screen via ‘Dynamic selections’. However, in order to select the complete document, activate the checkbox 'Keep document context with selections at item level' in the selection screen. If you do not require this and only want to select the items that match the selection criteria, activate the checkbox 'Only select items which correspond to the selection criteria'.

If the selection is mainly restricted to item level, data access to the database documents can be accelerated. To do this, activate the checkbox 'Item-oriented document selection'. This will mean that the document items that meet the selection criteria will be read first. The document header is then read afterwards. The document context can be retained by activating the checkbox 'Keep document context with selections at item level'. The type of performance improvement cannot, for technical reasons, be offered for documents which are already archived. The function is available from SAP release 4.6.

Parallel Accounting

Due to the requirements for parallel accounting according to IFRS and HGB some companies introduced the account model. All postings that only concern IFRS are posted on accounts with a leading "9". These accounts are to be excluded from the selection for auditors who carry out the HGB audit.

The selection of the correct accounts is executed via the delimitation of the G/L account interval in the master data selection (report /PBS/CFI_LIS_GLACC) and the delimitation of the G/L account number in the dynamic selections of the document data selection for financial accounting (report /PBS/CFI_LIS_ITEM). It is ensured that the restricted selection scope for the formation of reconciliation totals is taken into account. This functionality is provided with the correction in patch 2 for Final Release 2.

Reconciliation of FI transaction data between IDEA and the SAP system

Many users wish to carry out a consistency check of the contents of extracted financial accounting data using the PC analysis tool IDEA. In addition to the control total for debit and credit values in local currency, the PBS extract program for financial accounting documents in the SAP system (report /PBS/CFI_LIS_ITEM) provides a qualified reconciliation between the selected transaction data of a period and the respective cumulated transaction figures from the customer, vendor, and G/L account masters. The values that were determined have to correspond with the results of the SAP standard programs /PBS/SAF070 or /PBS/SAPF190 in the period-related extraction.

In addition, a reconciliation of the values between the SAP system and the imported dataset in IDEA can be carried out. This requires knowledge of the IDEA software.

How can you compare the reconciliation totals using the FI transaction data in IDEA with the SAP system?

1. To ensure that the SAP data can be reconciled in IDEA the fields below have to be added to the field catalog before starting the extraction run:

   - Account Type (XBSEG-KOART)
   - Debit/Credit Ind. (XBSEG-SHKZG)
   - Document Status (XBSEG-BSTAT_K)
   - Negative Posting (XBSEG-XNEGP)
   - Company Code (XBSEG-BUKRS)
   - G/L Account (XBSEG-HKONT)
   - Local Currency (XBSEG-HWAER_K)
   - Amount in LC (XBSEG-DMBTR)
   - Special G/L Indicator (XBSEG-UMSKZ))

2. After the extraction, you need to check whether the reconciliation totals of the extract log are correct and, if necessary, compare them with the values of program /PBS/SAPF070.

3. The data has to be copied to IDEA via the SMARTX interface or the import assistant. To ensure correct value field formatting you have to set the decimal separator to "." and the thousand separator to " " in the options.

4. The data has to be reconciled separately according to customers, vendors, and G/L accounts. **The procedure for customers and vendors** consists of two parts and should be carried out separately for each account type:

Part 1:
The basic data stock has to be filtered using the function *Extraction* → *Direct extraction* with the following details in the equation editor:

KONTOART = "D" .AND. NEGATIVBUCHUNG = " " .AND.
BELEGSTATUS = " " .AND. SONDERHAUPTB_KENNZ_ = " ".

Afterwards, you have to determine the total for the local currency amount using the function *Analysis* → *Sum up fields*.

Specify the fields “Company code”, “Local currency”, and “Debit/credit indicator” in the section “Summing up”. Select the field “Local currency amount” in the section “Totals field”. Then start the summing up and note down manually the determined total values.

Part 2:
The procedure has to be repeated as follows for negative postings (XBSEG-XNEGP = 'X'). The basic data stock has to be filtered using the function *Extraction* → *Direct extraction* with the following details in the equation editor:

KONTOART = "D" .AND. NEGATIVBUCHUNG = "X" .AND.
BELEGSTATUS = " " .AND. SONDERHAUPTB_KENNZ_ = " ".

Afterwards, you have to determine the total for the local currency amount using the function *Analysis* → *Sum up fields*.

Specify the fields “Company code”, “Local currency”, and “Debit/credit indicator” in the section “Summing up”. Select the field “Local currency amount” in the section “Totals field”.

The debit value that was determined from part 2 (meaning the total of negative postings with the debit/credit indicator 'S') has to be **subtracted** from the credit value from part 1**.**

Subtract the credit value from part 2 from the debit value from part 1.

The values that you have determined in this way can be compared with the reconciliation log of the SAP system. The procedure has to be applied separately for the customer and vendor account types.

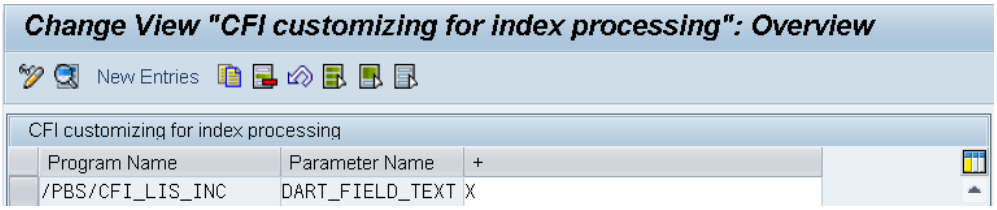
The extraction stock for defining the debit/credit values has to be filtered as follows for **G/L accounts** from the basic data stock.

Part 1:
NEGATIVBUCHUNG = " " .AND. BELEGSTATUS = " " .AND.
HAUPTBUCHKONTO <> " ".

Part 2:
NEGATIVBUCHUNG = "X" .AND. BELEGSTATUS = " " .AND.
HAUPTBUCHKONTO <> " ".
All other calculations should be in the same way as for the customers and vendors and compared with the reconciliation log from SAP.

2.15.4.1 Using SAP DART field names in the PBS extract stock

Macro-based data analyses by the financial authorities in the auditing tool IDEA are often based on the data structures of the SAP standard tool DART (Data Retention Tool). To have only slight deviations between SAP and the PBS Data Export Interface, the column description in AIS extracts of the PBS Data Export Interface can be selected in the same way as the DART extracts by parameterization of the table /PBS/CFI_CUSTOM. For this, the following entry has to be defined for the table /PBS/CFI_CUSTOM via the transaction SM30:



Make sure that the spelling is correct according to the example.

2.15.5 Generation of the description standard in XML format

Using the PBS Data Export Interface you can export any SAP tables in AIS format (Audit Information System) and process them using normal PC analysis programs, for example IDEA. To facilitate further processing, the description of the exported data can be carried out in an independent XML format. This function is available in the PBS archive add on CFI with customer patch 10 (IV quarter 2003).

Introduction

The "Principles of Data Access and Verifiability of Digital Documents" (GDPdU) of 16 July 2001 (BStBl I S. 415) define that in a tax audit, all structure information required for data evaluation is provided in automatically analyzable form by the company to be audited, in addition to the stored tax-relevant documents and records , if requested by the tax authority. In principle, this is guaranteed for SAP data by extracting the data in SAP AIS format via the Data Export Interface without using a general description standard. The structure description is integrated in the respective dataset (see chapter 2.15.1 In general).

In a tax audit, the financial authority uses the PC analysis program 'IDEA for GDPdU' from the company Audicon, Düsseldorf. In collaboration with manufacturers of remuneration accounting, financial accounting and archiving systems as well as the German Sales department of the federal audit software "IDEA" the financial authority has developed a uniform technical preparation aid for the format and content description of tax-relevant data.

As this interface ensures trouble-free data transfer in the case of requested data carrier handover, its use, on a voluntary basis, by software producers and companies who are required to keep accounts is recommended.

The "description standard for the data carrier handover" defines the data import interface for the automatic transfer of tax-relevant data including the links required for automatic evaluation.

XML-Based Description Standard

In order to process the various different data structures, the company to be audited provides the tax-relevant data in a largely "denormalized" form. In addition, the company provides a description of data, data formats and links in XML format, which can be evaluated automatically. The file format for the tax-relevant data has been defined in normal standard formats. Both the tax-relevant data and the description data are provided on one or more data carriers.

XML is the "eXtensible Markup Language". XML only specifies as mandatory one generic record of language elements so that a separate language has to be defined, depending on the case in question. This new language can be stored by structure information and element definitions in a DTD (Document Type Definition) in a machine-readable form. An XML parser can then check whether an XML document corresponds to the defined language (validation). A distinction is thus made between language description in the DTD and the contents in the XML instance.

Description data for the data carrier handover is thus not stored in the DTD itself but in the XML file INDEX_PBS.XML. The DTD describes the structure of the INDEX_PBS.XML file.

General Assumptions or Preconditions for DTD

In the DTD, the tax-relevant data must be organized in files. It is assumed that one file is needed per table so that the organization according to file and table physically occurs at the same time. The description data for the data carrier handover is stored in **one** file INDEX_PBS.XML. The DTD must be in the same directory on the data carrier as the INDEX_PBS.XML file. The description standard "gdpdu-01-08-2002" from the company Audicon is the basis for the XML files created by PBS.

The current technical description can be requested free of charge from the company Audicon (www.audicon.net). It contains the technical organization of the description standard and details of the DTD (Document Type Definition).

Generating the Description Data for AIS Data of the Data Export Interface PBS archive add on CFI

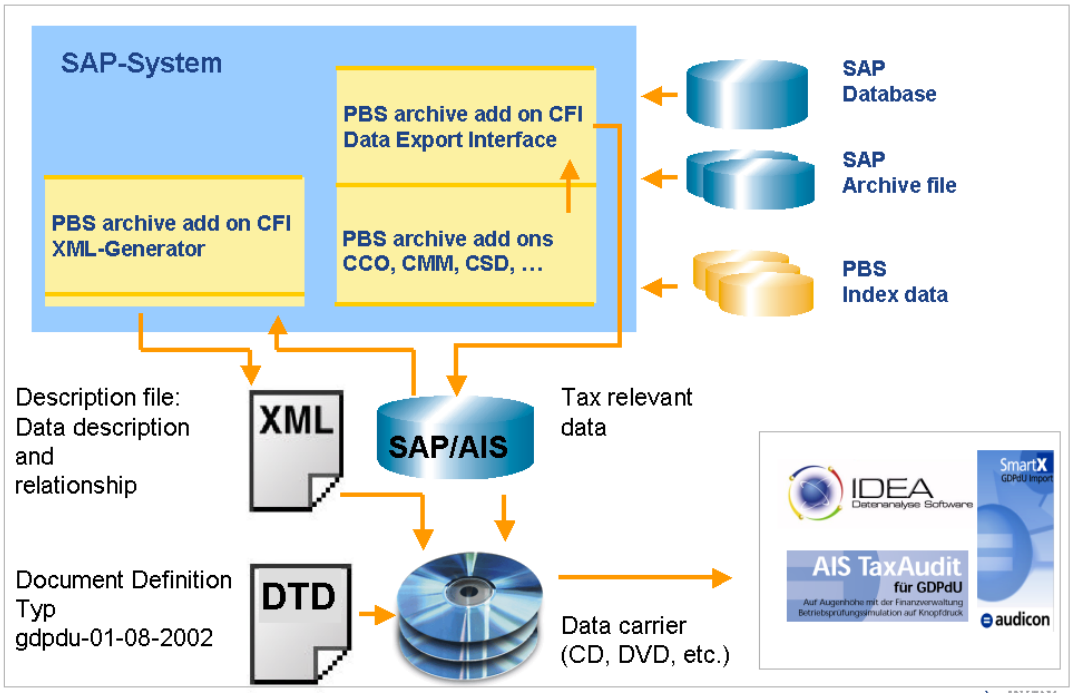


Diagram 40: Graphical display of PBS XML Generator

The tax-relevant data is exported via the Data Export Interface and stored in the file system. The data description for all tables in the export directory of the file system can then be stored in an XML file via the PBS XML generator. The data is transferred to a utilizable data carrier together with the tax-relevant data and the DTD file. The data can then be easily imported via the SmartX interface of the PC analysis program IDEA.

PBS XML Generator

A descriptive XML file can be created for the dataset after all tax-relevant data has been stored in AIS format in an export directory.

You can call up the generation via the PBS menu: CFI → Customizing → Generation XML file for Z3 data access or directly via the transaction /PBS/CFI_XML:

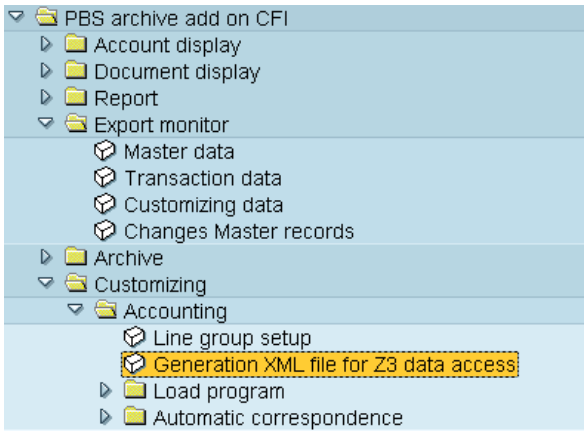


Diagram 41: Menu item XML Generator

The following selection screen is then displayed:

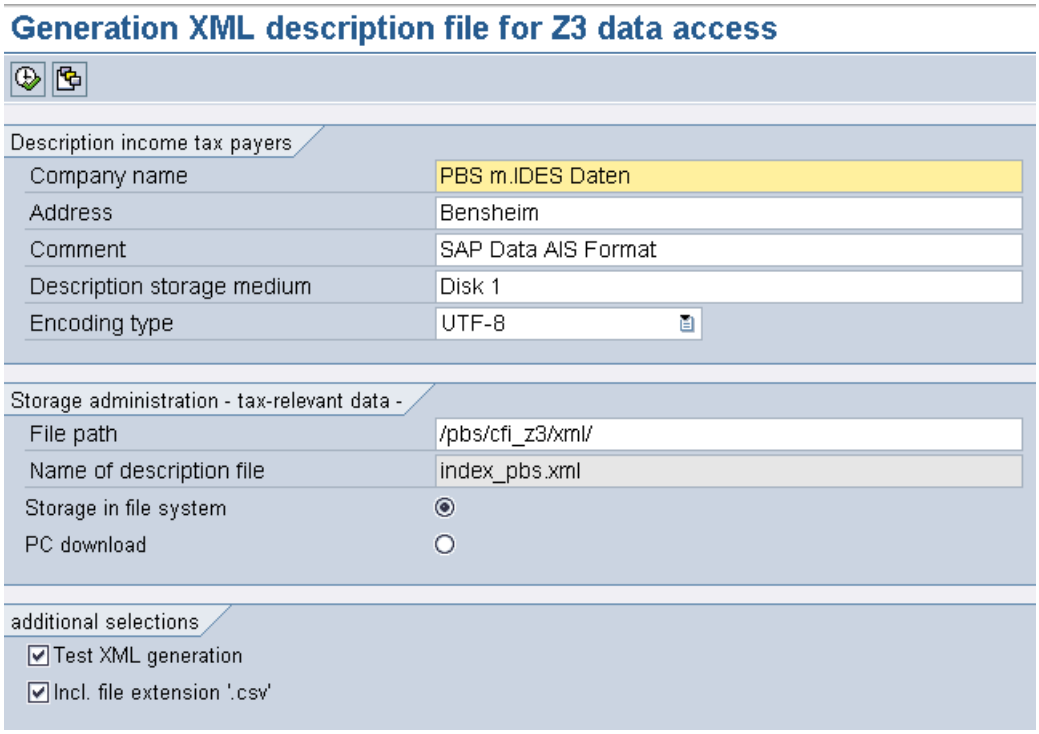


Diagram 42: Selection screen XML Generator

In the area "Description income tax payers" enter the company and address that identifies the data. In addition, the type of the character encoding must be entered. As XML documents are text data, you have to decide how the characters should be displayed in bits and bytes, in other words, how they should be coded, and which characters, or character strings, are relevant in a specific document. The Unicode UTF-8 encoding is defined as a default as the German umlauts are converted within the program. If an XML description is requested for countries with a different character set, the coding ISO-8859-1 (ISO Latin-1) should be used.

In the area "Storage administration – tax-relevant data" enter the path in which the tax-relevant data is contained. The XML file can be stored in the file system or on the local PC via a PC download.

For testing purposes, the generated XML file is only displayed in the screen if the checkbox "Text XML generation" is activated. Deactivate the checkbox if the XML file actually needs to be created.

Generation XML description file for Z3 data access

```
Generation XML description file for Z3 data access
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE DataSet SYSTEM "gdpdu-01-08-2002.dtd" >
<DataSet>
     <Version>1.0</Version>

     <DataSupplier>
          <Name>PBS m.IDES Daten</Name>
          <Location>Bensheim</Location>
          <Comment>SAP Data AIS Format</Comment>
     </DataSupplier>

     <Media>
          <Name>Disk 1</Name>
          <Table>
               <URL>T003T_20030603_120548.csv</URL>
               <Name>T003T_20030603_120548</Name>
               <Description>Document Type Texts</Description>
               <DecimalSymbol>.</DecimalSymbol>
               <DigitGroupingSymbol>,</DigitGroupingSymbol>
               <SkipNumBytes>00205</SkipNumBytes>
               <VariableLength>
                    <ColumnDelimiter>&#9;</ColumnDelimiter>

                    <VariableColumn>
                    <Name>T003T-MANDT</Name>
                    <Description>Mandant</Description>
                         <AlphaNumeric/>
                              <MaxLength>000003</MaxLength>
                    </VariableColumn>
```

:

```
                    <VariableColumn>
                    <Name>T003T-BLART</Name>
                    <Description>Belegart</Description>
                         <AlphaNumeric/>
                              <MaxLength>000002</MaxLength>
                    </VariableColumn>

                    <VariableColumn>
                    <Name>T003T-LTEXT</Name>
                    <Description>Bezeichnung</Description>
                         <AlphaNumeric/>
                              <MaxLength>000020</MaxLength>
                    </VariableColumn>

               </VariableLength>
          </Table>

     </Media>
</DataSet>
```

Diagram 43: XML file for example table

Certain conditions should be observed for successful further processing of the data including the XML description:

1. The files have been exported using the Data Export Interface in AIS format.

2. If the data is not to be imported via the SmartX interface of the IDEA tool and an XML description file, the following items can be ignored. The data can be imported file by file via the import assistant of the IDEA tool. Mark "SAP/AIS" compatible as file format.

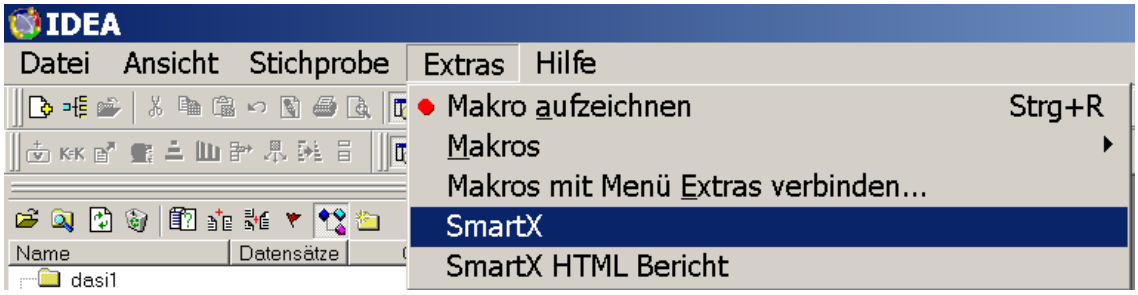
3. In order to further process the tax-relevant data via an XML description file, this file must be created via the XML generator mentioned above. Please ensure that subdirectories are not created in the directory of the tax-relevant data, as this might have unpredictable consequences. Apart from the subdirectories, no other files may exist that are not in AIS format.

4. The description can then be generated via the program /PBS/CFI_LIS_GENERATE_XML. If possible, this can be stored in the directory of the tax-relevant data or later on PC if the XML file is downloaded to PC. From CFI customer patch 15 it is no longer necessary to add the file suffix '.csv' to the extract files. You can use the radio button 'incl. file extension '.csv' for this option. If the XML description for the manufacturer-specific interface is generated in the PC analysis tool TaxAudit of company Audicon (chapter 2.15.6), please ensure that the selection "Technical field name" is used instead of "Plaintext" in the selection screen of the generation program.

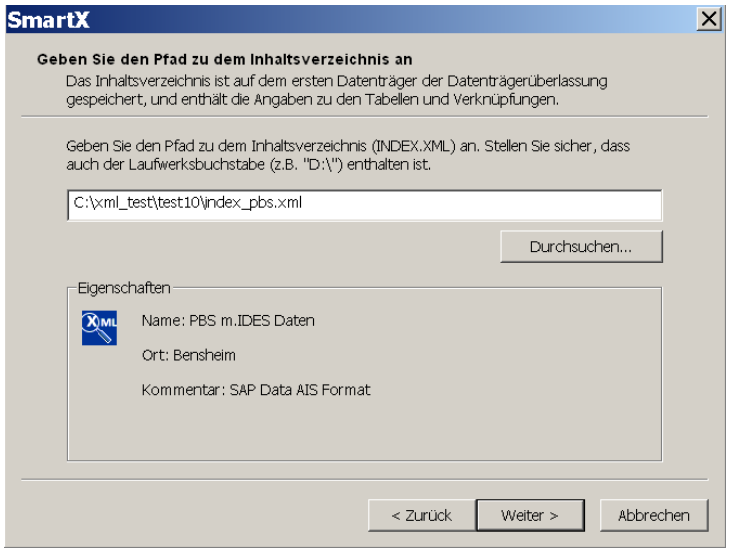
5. The data, including the XML file, can now be transferred from the operating level of the SAP system to PC level. If the option 'incl. file extension '.csv' was active during the generation of an XML file, the extracted AIS files must have the suffix '.csv'. This is not supported automatically in the current version of the Data Export Interface. The file thus has to be renamed at PC level. Many PC file administration programs (freeware programs) contain a function which enables this conversion for all files. Please ensure that the suffix is written in lower case.

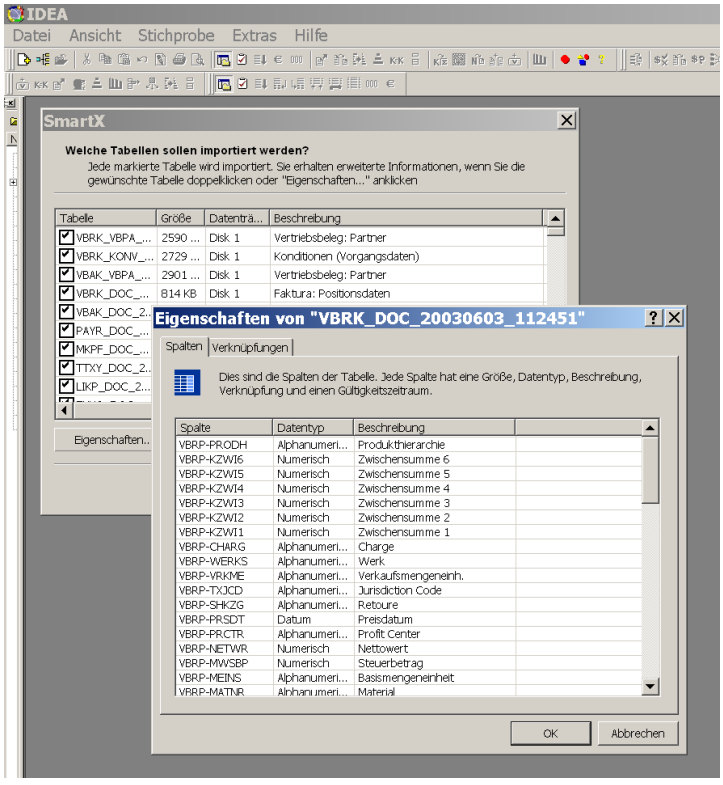
6. In addition to the tax-relevant data the files 'index_pbs' (XML description data and the file 'gdpdu-01-08-2002.dtd' (Document Type Definition) must be stored on the data carrier. PBS provides the file 'gdpdu-01-08-2002.dtd' in the directory 'DOCU' with the software. The data carrier thus created can then be imported easily into the PC analysis program IDEA.

7. For further processing via XML description please check first if the installed IDEA version contains the import interface SmartX. For this purpose, start the IDEA tool. The option SmartX should be displayed under the menu item 'Extras'.



The data can then be transferred using this menu item.

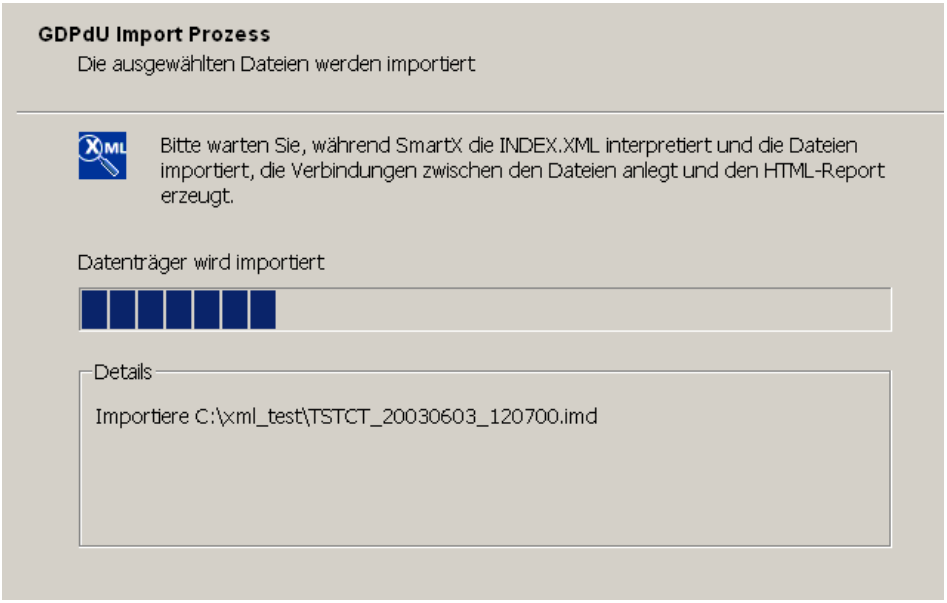

SmartX
Geben Sie den Pfad zu dem Inhaltsverzeichnis an
Das Inhaltsverzeichnis ist auf dem ersten Datenträger der Datenträgerüberlassung gespeichert, und enthält die Angaben zu den Tabellen und Verknüpfungen.
Geben Sie den Pfad zu dem Inhaltsverzeichnis (INDEX.XML) an. Stellen Sie sicher, dass auch der Laufwerksbuchstabe (z.B. "D:\") enthalten ist.
C:\xml_test\test10\index_pbs.xml
Durchsuchen...
Eigenschaften
Name: PBS m.IDES Daten
Ort: Bensheim
Kommentar: SAP Data AIS Format
< Zurück
Weiter >
Abbrechen


IDEA
Datei Ansicht Stichprobe Extras Hilfe
SmartX
Welche Tabellen sollen importiert werden?
Jede markierte Tabelle wird importiert. Sie erhalten erweiterte Informationen, wenn Sie die gewünschte Tabelle doppelklicken oder "Eigenschaften..." anklicken
Tabelle Größe Datenträ... Beschreibung
VBRK_VBPA_... 2590 ... Disk 1 Vertriebsbeleg: Partner
VBRK_KONV_... 2729 ... Disk 1 Konditionen (Vorgangsdaten)
VBAK_VBPA_... 2901 ... Disk 1 Vertriebsbeleg: Partner
VBRK_DOC_... 814 KB Disk 1 Faktura: Positionsdaten
Eigenschaften...
Eigenschaften von "VBRK_DOC_20030603_112451"
Spalten Verknüpfungen
Dies sind die Spalten der Tabelle. Jede Spalte hat eine Größe, Datentyp, Beschreibung, Verknüpfung und einen Gültigkeitszeitraum.
Spalte Datentyp Beschreibung
VBRP-PRODH Alphanumeri... Produkthierarchie
VBRP-KZWI6 Numerisch Zwischensumme 6
VBRP-KZWI5 Numerisch Zwischensumme 5
VBRP-KZWI4 Numerisch Zwischensumme 4
VBRP-KZWI3 Numerisch Zwischensumme 3
VBRP-KZWI2 Numerisch Zwischensumme 2
VBRP-KZWI1 Numerisch Zwischensumme 1
VBRP-CHARG Alphanumeri... Charge
VBRP-WERKS Alphanumeri... Werk
VBRP-VRKME Alphanumeri... Verkaufsmengeneinh.
VBRP-TXJCD Alphanumeri... Jurisdiction Code
VBRP-SHKZG Alphanumeri... Retoure
VBRP-PRSDT Datum Preisdatum
VBRP-PRCTR Alphanumeri... Profit Center
VBRP-NETWR Numerisch Nettowert
VBRP-MWSBP Numerisch Steuerbetrag
VBRP-MEINS Alphanumeri... Basismengeneinheit
OK
Abbrechen

Error Analysis for Data Import to IDEA

Problem 1:

The data is loaded in IDEA via the SmartX assistant. After selecting the tables the import stalls in the following screen:


GDPdU Import Prozess
Die ausgewählten Dateien werden importiert
Bitte warten Sie, während SmartX die INDEX.XML interpretiert und die Dateien importiert, die Verbindungen zwischen den Dateien anlegt und den HTML-Report erzeugt.
Datenträger wird importiert
Details
Importiere C:\xml_test\TSTCT_20030603_120700.imd

Solution:

Note the file specified under ‘Details’. Terminate the import. Repeat the data import, exclude the faulty table in the selection screen. If the problem occurs again for further import files, these must also be excluded. After the import is complete in the SmartX assistant you can attempt to load the faulty files via the IDEA import assistant. **Remove the file suffix ‘.csv’ from the files that still need to be loaded in order for this to function properly.**

Problem 2:

Files are imported via the IDEA import assistant. The following error message is displayed:

IDEA
FEHLER:
Es wurde ein Datensatz mit einer unüblichen Anzahl von Trennzeichen gefunden.
Zum Beispiel
3,"ABC",1,2 ist ein korrekter Datensatz, während
3,"ABC,1,2 kein korrekter Datensatz ist
IDEA kann mit dem Import nicht fortfahren.
OK

Analysis:

The file to be imported contains fields that only contain one quotation mark (") or that begin with a quotation mark.

Solution:

Find the quotation marks using a normal PC editor and replace them with a space.

If errors still occur during the import, it might be that the data still contains other invalid characters. You can attempt to analyze the problem using the SAP System. You first need to make the faulty file available in the file system of the SAP System. You can then use the program /PBS/CFI_LIS_AIS_CHECK to search the faulty file for invalid characters. All files found are displayed in an overview. You can start the analysis by double-clicking on the file name.

2.15.6 Manufacturer-Specific Interface in the Audicon Tool TaxAudit (from SAP Enterprise Release)

The tool supports the auditor when technically merging auditing steps with the required tables and data and is thus a supplementary solution for the auditor tool IDEA. AIS TaxAudit supplies various automated audit macros that cover nearly all areas of various tax audits. PBS supports the manufacturer-specific interface of AIS TaxAudit. Audit macros can thus be linked automatically with the data provided.

The predefined audit cases from the areas Asset Management and Financial Accounting (status July 1, 2004) are supported. The following data from the SAP System can be made available using the PBS Data Export Interface in order to use the SAP System manufacturer-specific interface:

Data type	Area	Export program	Display layout	File name 0000 = Placeholder
Master data	Asset Management	/PBS/CFI_LIS_ASSET	/PBS/AIS_ANM	AIS_ANLA_MRC_0000
Transaction data	Asset Management	/PBS/CFI_LIS_ITEM_ASSET	/PBS/AIS_AND	AIS_ANLA_DOC_0000
Transaction data	Financial Accounting	/PBS/CFI_LIS_ITEM	/PBS/AIS_FIB	AIS_FIBU_DOC_0000

The export programs can be started via the export monitor or by calling the program directly. It is essential that only the field variant predefined by PBS for the data export is used to support the interface.

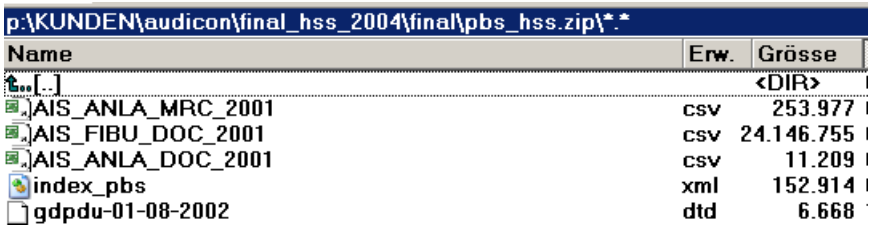
The variant must not be changed in the customer system. If the extracts are stored in the file system, the data must be supplemented by the XML description (see Chapter 2.15.5).

The example variant CUS&PBS_TAXAUD has been defined in each program to facilitate the data extract. This variant can be used as reference for the individual data extract.

The naming convention of the file name has to be taken into account. It must not changed. Only the last four digits can be defined by the customer, for example,

with the company code or the fiscal year. After transfer to the PC level the extract data stocks have to be supplemented by the extension '.csv'.

The data stock for the manufacturer-specific interface could be as follows:



In the TaxAudit tool the data and the audit case are automatically linked by a plug-in provided by Audicon. For further information about the manufacturer-specific interface please see the TaxAudit documentation.

2.15.7 Data Extraction according to the "Braunschweig Model"

The so-called "Braunschweig Model" is a minimum requirement for data from SAP systems that is requested within the context of a digital tax audit. This requirement catalog was developed by the regional tax office Hannover to simplify the digital data access for external audits.

The extracted dataset of the "Braunschweig Model" is interpreted via a number of macros of the audit software IDEA to carry out accounting-related audits in an easy way by comparisons and links between account and transaction data after the import of the "raw data".

The dataset of the "Braunschweig Model" was originally based on 23 data segments from SAP DART data extracts. This requirement can be met in the same way using the PBS Database Export Interface. For this, the subsequent programs have to be carried out with the preconfigured selection or layout variants.

2.15.8 Evaluation of the extract stocks in the AIS format (from SAP Enterprise Release)

The PBS Data Export Viewer offers the option of making data extracts for a tax audit created using the Data Export Interface available again in the SAP System for evaluation purposes.

This can be useful if you would like to verify the data before handing it over to the tax auditor. In order to evaluate the data, it must be available in SAP AIS format (Audit Information System). In addition to the data from the Data Export Interface also views from SAP DART and data from the SAP Audit Information System can be imported.

A separate evaluation program is generated in the SAP System for all data that is to be imported via the Data Export Viewer, SAP System due to the file and structure information of the data. As all information for the generation is only taken from the AIS file, the current Customizing settings of the SAP System on which it is based are not relevant. This means that data from a third system can also be processed using the tool if the data is available in SAP AIS format.

You can call up the functions of the Data Export Viewer via the CFI Menu → Data Export Interface → Export Viewer.

Administrators should use the menu item ‘Administration’ (transaction /PBS/CFI_Y90). Here, you can select, parameterize and generate the data for analysis in the SAP System, as well as assign it to individual user groups. End-users should use the menu item ‘Reporting’ (transaction /PBS/CFI_ALV). This contains all the programs for which a respective authorization exists.

The administrator functions include:

1. **Selecting Check-In Path**

   The Check-In path contains those AIS files which are to be used for evaluation purposes in the SAP System. The contents of the Check-In path must be accessible from the SAP System. If you know the path you can enter it directly. If not, you can use the function 'Find'.

2. **Displaying and Selecting File Structures**

   The AIS files of the Check-In path are offered for selection here. The field structures of the individual datasets can be selected for display using the function button in the column ‘Structure’. The files can be selected individually or globally for further processing via the function key 'Select files’. A comment can be entered for each file in the column ‘Comment’. This is displayed in the selection screen when the evaluation program is generated. The files are marked for generation of the evaluation programs using the function key 'Transfer settings'.

3. **Integrating Authorization Check**

   You might wish to perform authorization checks on the data to be imported. In order to take these checks into account when the evaluation programs are generated, you can select one authorization object per field under this menu item. The selected authorization objects are used once for the pending program generation via the function ‘Transfer setting’. If you choose the function 'Transfer setting and save for reuse' the link between the field and the authorization objects is retained and is proposed automatically when evaluation views are created in the future.

4. **Generating and Storing**

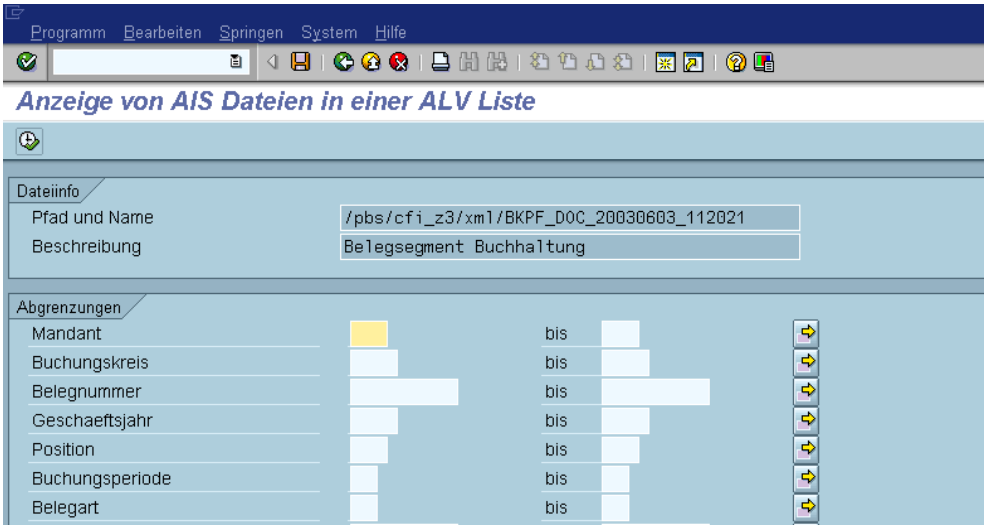
   Executable programs for the selected extracts are stored in the SAP database via this function.

5. Administration

Generated view programs can be assigned specifically to individual user groups. This means, for example, that data containing sensitive information can only be accessed by certain people. In addition, it is possible to delete the generated programs again.

6. Testing functions

All created view programs are available to the administrator for test purposes. The program can be started via the function 'Execute data view'.



In the selection screen, selections are generated from the fields contained in the extract which can be used to restrict the scope of selection.

2.16 Transfer of Archive Data into SAP BW (from SAP Release 4.6C)

An increasing number of customers want to extract data that has already been archived from an SAP R/3 system so that it can be loaded into an SAP BW system. In addition to the SAP Business Content extractors, which are mainly provided for the export of database data, PBS would like to extend the process to also include the export of application data that has already been archived.

In addition, extract programs will be delivered in the PBS archive add ons that will enable the export of application-related data that has already been archived.

The basis for this will be the creation of files in SAP AIS (Audit Information System) format, which can then be easily transferred into an SAP BW system. For more information on this procedure, please refer to the documentation on our website http://www.pbs-software.com → Media Center → General/Brochures.

The following programs in the PBS archive add on CFI support the extract for a data import into SAP BW.

Program name	Description
/PBS/CFI_LIS_ITEM	Variable FI document extract
/PBS/CFI_LIS_ITEM_MATERIAL	Variable material document extract
/PBS/CFI_LIS_REFERENCE_POOL	Variable table extract → Individual table

To ensure a smooth transfer, the selection parameter “Create BW extract” should be activated in the extract programs. It should also be taken into consideration that the database data has already been exported with an SAP Business Content extractor. This means that the selection parameter '1=DB+archive, 2=DB, 3=archive' should be set to the value '3'.

The program /PBS/CFI_LIS_REFERENCE_POOL can be used to extract all transparent database tables and database views. In the case of individual tables, archive data is taken into consideration in addition to the database data when this is being done. This could be of interest in the case where no SAP Business Content extractor exists for certain objects.

3 ABAP/4 Interface to the PBS archive add on CFI

The following chapter describes the methods and auxiliary programs for the access to the data archived with the PBS archive add on CFI.

There are several ways to access this data:

- standard reporting (see chapter 2.9)
- logical databases (see chapter 2.8)
- ABAP/4 routines in the central access reports
- Conversion Tool: Function module /PBS/SELECT_INTO_TABLE (or 3.x: SELECT_PBS_INTO_TABLE)

3.1 Access via ABAP/4 Routines

All important routines required for the access to archive data are stored in the ABAP reports /PBS/CFIFREAD (respectively 3.x: ZZCFREAD) and /PBS/CFIMREAD (respectively 3.x: ZZCMREAD).

3.2 Access via Conversion Tool

ABAP reports which read R/3 database by SELECT statements can be converted to ABAP reports reading data from PBS archive add on also. That can be supported by the PBS Conversion tool which mainly uses a function module **/PBS/SELECT_INTO_TABLE** (respectively 3.x: SELECT_PBS_INTO_TABLE) accessing PBS archive add on data and exporting records of the requested table into an internal table.

There is a separate manual describing features and handling of **PBS Conversion Tool**.